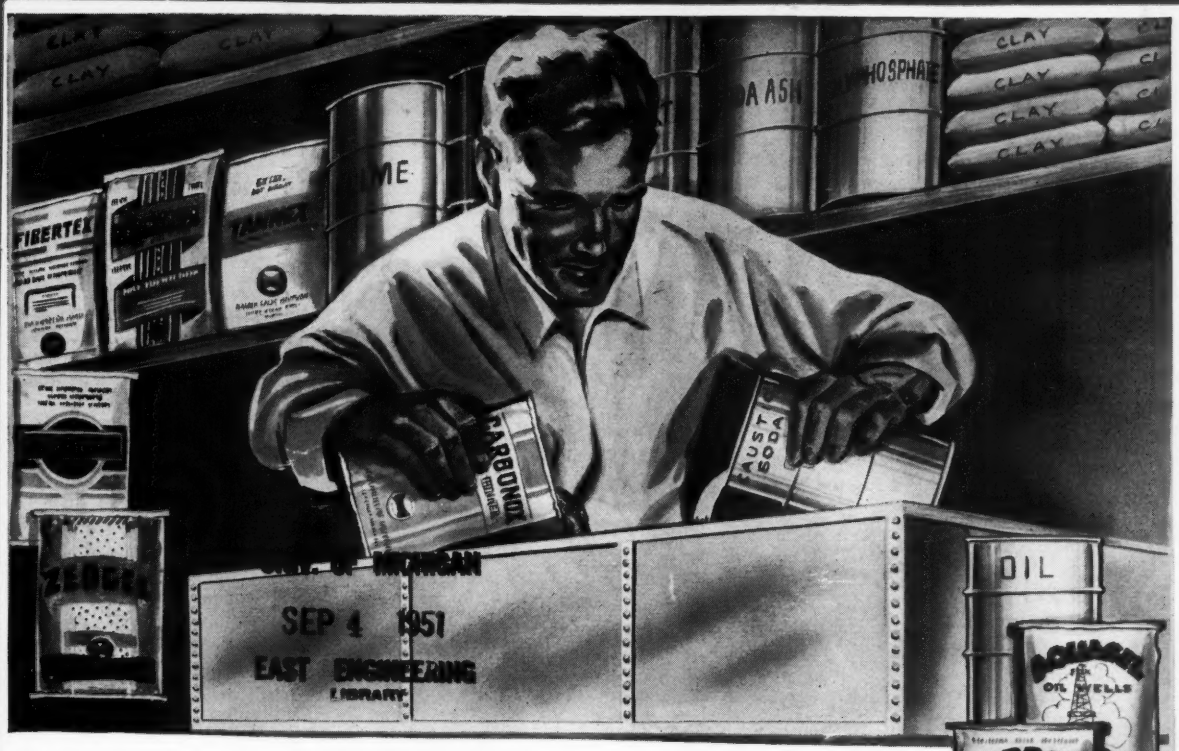
CALIFORNIA OIL WORLD



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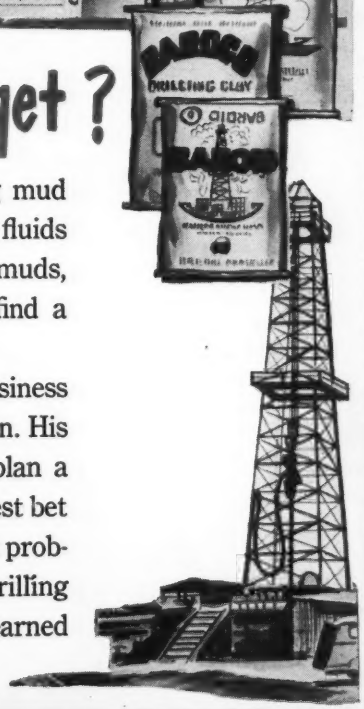

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CALIFORNIA
OIL WORLD

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August 15th, 1951
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Washington Highlights

The Office of Price Stabilization announces dollars and cents ceilings for tank wagon prices on regular gasoline in California's Los Angeles district, permitting retailers to charge 4.5 cents a gallon above delivered price. The ruling also sets a margin of 2.5 cents a gallon above the tank wagon price as a ceiling for rack sales. The new ceiling will not affect the general level of prices but will allow about 20 per cent of a total of 9500 dealers, handling from 6 to 10 per cent of the districts supply to obtain normal prices by boosting their retail gasoline 1 to 1½ cents a gallon.

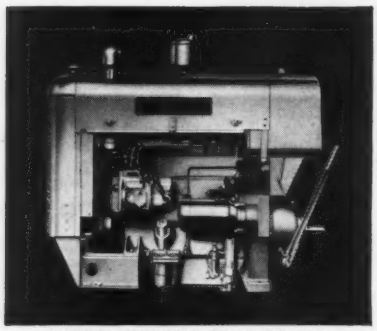
Due for completion in the very near future is the first thorough and all-embracing survey of petroleum transportation in the United States undertaken by a body of expert consultants at the request of the Petroleum Administration for Defense.

Secretary Oscar Chapman recently flew to Mexico at the invitation of President Aleman to inspect facilities of Petroleos Mexicanos. He was accompanied on the tour by Bruce K Brown, Deputy Petroleum Administrator of Defense, Gordon Keith, Brown's assistant, and Just Sierra of the Mexican Embassy at Washington. Petroleum in Mexico has assumed new importance in view of the situation in Iran, oil leaders have pointed out.

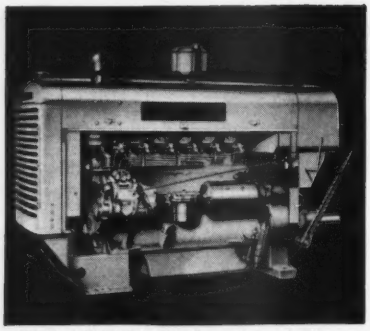
Only if he is convinced "the Republicans really want me," will Senator Robert A. Taft seek the presidential nomination. But he added that "there is every reason to believe the Republicans can win the presidency in 1952." The Ohio Senator was a guest recently of former President Herbert Hoover at Bohemian Grove, Calif. and made these remarks before boarding a plane for Washington.

As was fully expected the House passed legislation giving states title to submerged lands off their coasts. The vote was 265 to 109 on roll call. The President has indicated that he will veto the bill and the question now arises as to whether Congress would sustain a veto. Under the bill okayed by the House three Supreme Court decisions are reversed. These decisions vested authority in the Federal Government over offshore lands. It would grant states title to the lands seaward for three miles or 10½ miles in the case of Texas and to all oil and other minerals under the land. For a distance up to 250 miles or more from the three-mile limit outward to the edge of the continental shelf the Federal Government would have power to lease the land for oil development with provisions that 37½ per cent of royalties the Federal Government collected should go to the states. Before passing the measure the House accepted an amendment by Representative Curtis, Republican of Nebraska, which would require that all royalties collected by the Federal Government should be used for the retirement of public debt. The bill now goes to the Senate. California, Texas and Louisiana are now developing oil room land beneath the sea. All 48 states backed the legislation passed by the House. The states fear that the Federal Government might even go further than the tidelands and some time lay claim to river and lake beds and to reclaimed lands. However, in this regard Federal spokesmen have on a number of occasions assured Congress the government has no intention of thus doing. Mr. Truman disapproved a similar bill in 1946 while the tidal lands matter was pending before the Supreme Court The year following the high court ruled in favor of the United States against the states. In 1946 the House upheld the President's veto. The vote was 139 to 95, with 196 members not voting. Nevertheless, the House in 1948 passed a like bill by a vote of 257 to 29. This was 66 more than the two-thirds required to override a veto, but the Senate failed to act. It appears that if the House vote is equal to overriding a veto, the Chief Executive probably will look to the Senate to block enactment.

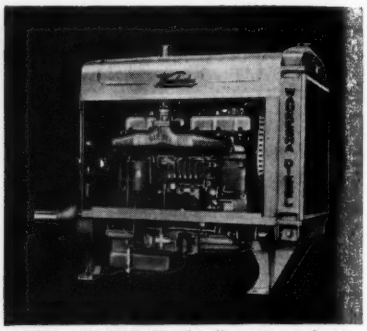
Chief Judge Paul J. McCormick of the U. S. District Court at Los Angeles, Calif., has requested President Truman for permission to retire September 1.



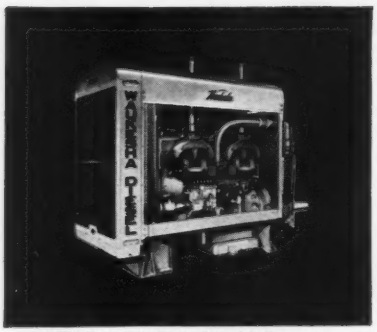
MODEL 180-DACU—Diesel utility unit; 12-27* hp.



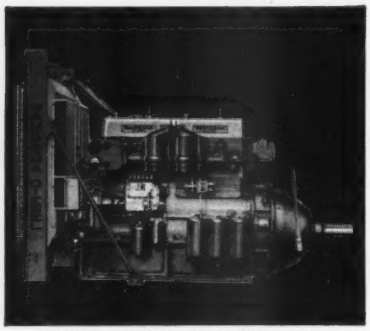
MODEL 190-DLCU—Diesel pumping and utility unit; 25-60* hp.



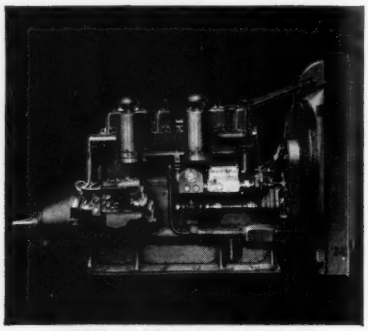
MODEL 148-DKU—Diesel well servicing and cable tool drilling unit; 86-150* hp.



MODEL 6-WAKDU—Diesel drilling unit; 121-190* hp.



MODEL 6-NKDU—Diesel drilling unit; 150-252* hp.



MODEL 6-LRDU—Diesel drilling unit; 240-333* hp.

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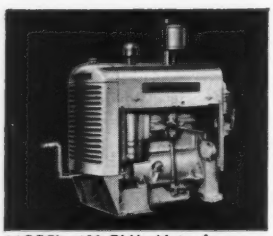

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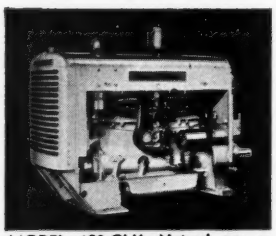
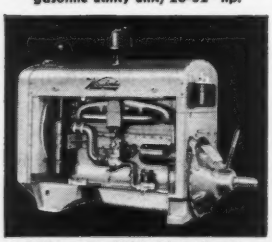
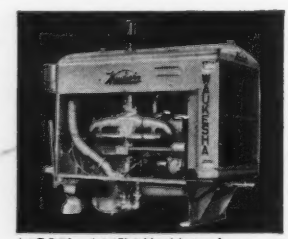


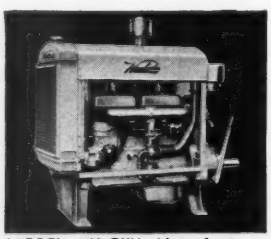
MODEL 190-GLU—Natural gas or gasoline pumping unit; 29-57* hp.



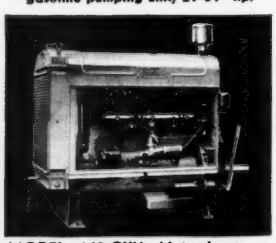
MODEL 195-GKU—Natural gas or gasoline pumping unit; 35-85* hp.



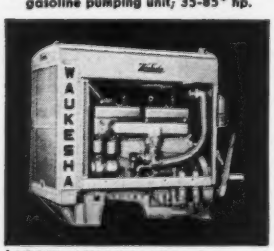
MODEL 6-MZAU—Natural gas or gasoline pumping unit; 40-72* hp.



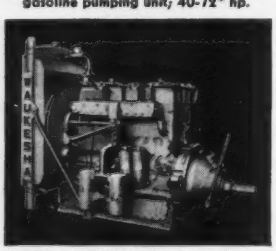
MODEL 140-GKU—Natural gas or gasoline servicing unit; 47-115* hp.



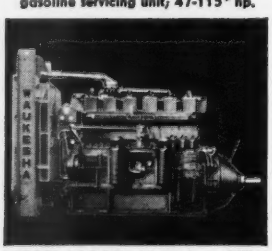
MODEL 145-GKU—Natural gas or gasoline servicing unit; 65-150* hp.



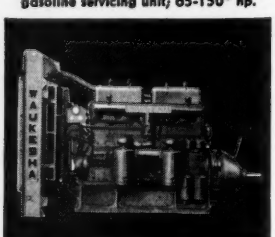
MODEL 6-WAKU—Natural gas servicing-drilling unit; 138-213* hp.



MODEL 6-NKU—Natural gas drilling unit; 156-216* hp.



MODEL 6-LROU—Natural gas drilling unit; 244-375* hp.



MODEL 6-LRZU—Natural gas drilling unit; 311-435* hp.

*Continuous Rating

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Rubber, Its Properties and Applications To The Drilling Industry

ABSTRACT:

To understand better the functions of natural and synthetic rubbers as materials for use in the drilling industry, some fundamental properties and their relation to drilling applications are discussed.

The conditions encountered in the industry, namely, temperatures, pressures, and media, drastically reduce rubber physical properties. The effect of these conditions is shown.

Proper design is necessary in order to make best use of available rubber properties.

A rubber product which will provide maximum service life may be developed by consideration of three basic factors:

1. Analysis of requirements and conditions;
2. Selection of best suited materials, and
3. Proper design

By JOSEPH B. LARKIN
Patterson-Ballagh
Division of Byron Jackson Co.,
Los Angeles, California

The importance of rubber and elastomeric materials in the oil field industry has been well established. More extensive use of these materials and improved quality can only be obtained by an increased knowledge of their properties in relation to the condition of service. The drilling industry has extended the scope and efficiency of its operations during the past decade, which has increased the severity of conditions, and thereby the requirements for rubber products. Fortunately, these more rigorous conditions have been met by various synthetic rubbers.

As the depths of drilling have increased, temperatures have also increased and, various oil base drilling fluids have been encountered. Some of the synthetic rubbers have been found to withstand high temperatures and to be less affected by the oil base drilling fluids.

Many investigations of rubber are made on formulas or compounds which have been produced only in the laboratory. Not all of these materials are practical for factory production. All of the data included in this discussion, however, have been obtained on rubber compounds which have proven practical in production methods.

PHYSICAL PROPERTIES:

Physical properties of rubbers may be divided into two broad groups:

1. Fundamental—those which are specific for the particular material under normal conditions of testing, and
2. Service—those which are related directly to the type of conditions in which the product is involved.

The fundamental group can be measured in the laboratory and it is these properties, modulus (load required for unit deformation), ultimate tensile strength, ultimate elongation, resistance to tear and hardness, which are shown in Figures 1 through 5 (1, 2, 3, 4, 5, 6)*. These are the maximum properties normally obtainable from high grade compounds.

All of these properties are not necessarily obtainable in the same compound, but show what might be attained if the individual property were the primary one being developed. If the maximum of one of these properties is sought, other properties may reach a maximum or may be attained to a lesser extent. For example, when a high modulus is desirable the elongation of this compound would normally be low. If a high tensile strength is attained, normally the tear resistance would also be high. If one of these

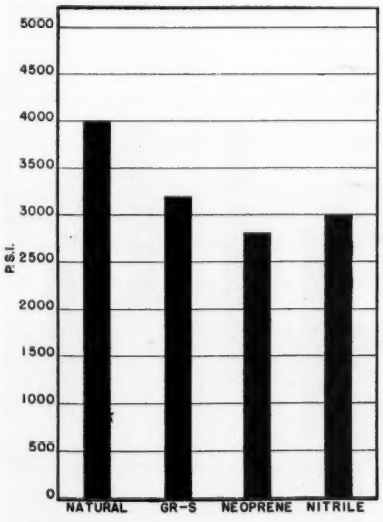

Figure 1: 300% Modulus — Normal Maximum for Indicated Polymers

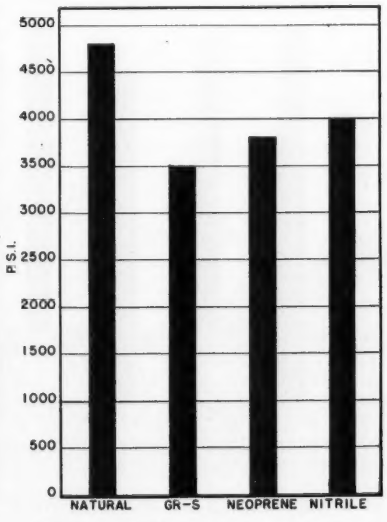

Figure 2: Ultimate Tensile Strength —Normal Maximum for Indicated Polymers

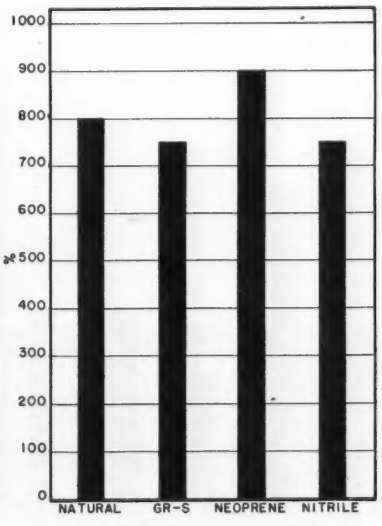

Figure 3: Ultimate Elongation—Normal Maximum for Indicated Polymers

properties is set as the primary goal, the other properties are defined by virtue of the type of compounding required.

Oftentimes hardness is set as the only criterion. This is not wise as other properties may cover an extremely wide range, depending on the type of compounding.

Figures 6 and 7 (5, 7)* illustrate the wide range of properties which might be obtained for a given hardness. The shaded areas indicate the minimum and maximum properties which are obtained for a 70 Shore hardness compound.

To understand best the variation of physical properties, it is necessary to realize that these properties are functions of the various materials which are added to the base elastomers. A finished piece of rubber goods might be likened to alloy steel, where the rubber is similar to iron. Other ingredients are then added to increase its toughness, strength and hardness.

It might be of interest to point out that a rubber compound is generally composed of the following materials:

1. The basic elastomer, natural rubber or synthetic.
2. Vulcanization agents, or those materials which produce vulcanization.
3. Activators of vulcanization.
4. Accelerators—to increase the rate of vulcanization.
5. Antioxidant—to improve the aging qualities.
6. Fillers or reinforcing pigments.
7. Oils and plasticizers.

As some of these individual clases of materials may contain upwards of fifty different materials, it is readily seen that the final products contain a wide variation of materials and, therefore, an equally wide distribution of physical properties.

One class of materials which may have the greatest influence on any given polymer is the class of fillers or reinforcing pigments. The class is divided in this manner because the fillers act as diluents and tend to reduce the properties. The other division, reinforcing pigments, normally refers to carbon blacks, in which case the carbon blacks actually reinforce the elastomer by increasing the various properties above those obtained if the pigment were not used.

For example, one of the most outstanding differences in the properties of rubber compounded with carbon blacks or mineral fillers is loss of abrasion resistance shown in Figure 7. In addition to the values shown in this chart, differences in abrasion resistance are further illustrated by the fact that tires in the early 1920s were produced with mineral fillers. These tires were considered to give excellent service if they ran 5000 miles. Our tires of today are all compounds produced with carbon black reinforcement, and are normally expected to run 25,000 miles.

One obvious conclusion drawn from Figures 6 and 7 is that when a new application for rubber is to be considered, a careful examination of all requirements should be made. Only those properties which are necessary should be included for unnecessary requirements can cause a decrease in potential service life. This also holds true for undue emphasis on one particular requirement to the exclusion or omission of other desirable properties.

The foregoing data have pertained strictly to the fundamental physical properties of the various elastomers without regard to their function in service. The physical properties which are related to type of service will now be considered with a discussion of their application.

APPLICATION OF RUBBER PROPERTIES TO OIL WELL EQUIPMENT:

Equally important with the magnitude of the original physical properties is the manner in which the various elastomers retain them in service. The retention of properties is related directly to the conditions of service. Two major factors influencing the retention of physical properties of rubber used in the drilling industry are temperature and oil. Also of paramount importance is the design. If the part has been designed without proper consideration of rubber physical properties, it will result in an unnecessarily high degree of fatigue.

A clearer picture of the effect of temperature, oil and design on the properties of rubber might best be appreciated by considering a specific

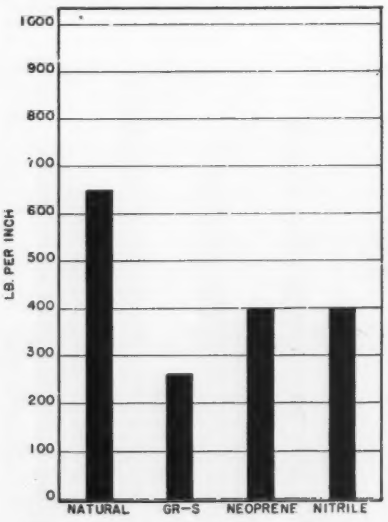

Figure 4: Tear Resistance—Normal Maximum for Indicated Polymers

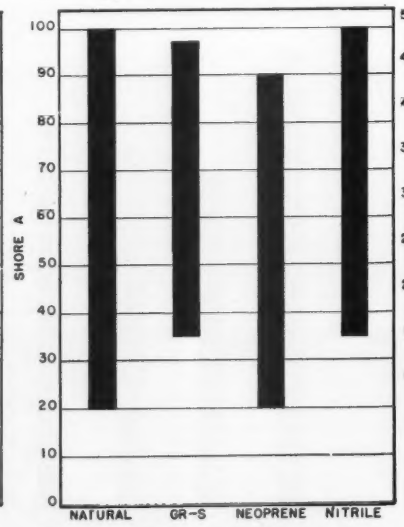

Figure 5: Hardness: Shore A Durometer — Normal Maximum for Indicated Polymers

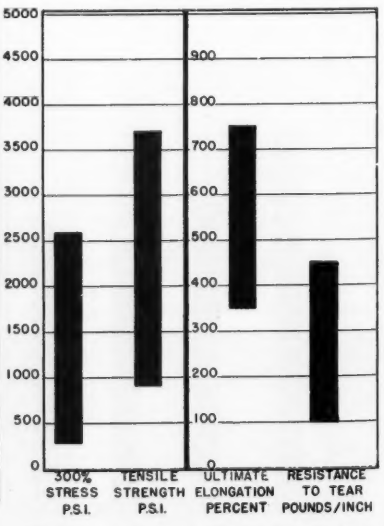

Figure 6: Range of Properties for 70 Shore Neoprene

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application in the drilling industry.

CASING PROTECTORS:

Of the many rubber products in use in the drilling industry, casing or drill pipe protectors must meet some of the most severe conditions and will illustrate the wide range of properties required. A brief survey of the past history of casing protectors might best indicate some of the developments which have been required to offset the effects of increased severity of operating conditions on the service life of this product.

When casing protectors were first used in the late 1920s, the drilling depth did not produce extreme temperature. At this time the protectors were made of natural rubber and functioned well under the moderate temperature conditions and water base mud. As the depth of drilling was increased, the temperature increased proportionately; therefore, the service life of the natural rubber protector was shortened, and as some of the temperatures became excessive natural rubber did not produce satisfactory results. Likewise, the advent of oil base drilling fluids adversely affected natural rubber protectors due to the inherent weakness of natural rubber in petroleum products.

As the heat conditions became more severe, a new synthetic rubber, Neoprene, came into use. This material will withstand the effect of temperature to a greater extent than natural rubber; even so the problem of high temperature became apparent with Neoprene.

During a field investigation of deep drilling in Southern Louisiana, in which the author participated, the temperature effect encountered at extreme depths was clearly observed. In these cases, protectors on the upper portion of the string of drill pipe were unaffected, while those on the lower portion of the pipe had failed.

Another factor which was found to affect the life of casing protectors is the installed degree of tension. It was the general practice to use one size of protector on two or three sizes of drill pipe. It was then noted that the failures of a given size protector were related to the size pipe on which they were used. Critical examination of this fact over a period of time showed that fatigue failures were encountered with given protectors when used on the larger sizes of drill pipe. This fact indicated that fatigue is a direct function of the degree of tension, and that higher tension causes increasing fatigue.

During the previous mentioned Louisiana survey, one high temperature well was investigated in the Gulf Waters where this type failure occurred. It was found that the drilling company has installed protectors of two different sizes on the same string of drill pipe. The group of small protectors was under an excessively high degree of tension; these protectors failed.

As it is tension which holds the protector on the drill pipe, sufficient tension is required to grip the pipe without slipping or causing excessive fatigue. Fatigue is caused not only by tension, but also by temperature and media. It is, therefore, necessary to determine in a quantitative manner, the contributions of media, temperature and tension to fatigue. This was accomplished by a series of controlled tests in the laboratory with which the author is connected.

FATIGUE:

Fatigue in rubber is the result of a chemical reaction. Therefore, the rate of fatigue is determined by the rate of the chemical reaction. As all chemical reaction rates are affected by temperature this factor must be evaluated when determining the influence of media or tension. There was need for material to withstand oil base muds and, as the effect of tension can only be studied in relation to the media in which it is evaluated, it is necessary to determine the effect of oil.

OIL RESISTANCE:

Although the general effect of oil on natural and synthetic rubbers is known, it must be determined on compounds which can be used in casing protectors. It should be noted that the numerical values in the following figures are specific for the compounds tested. Although these values would be different for other compounds, the general trends and relationships would still exist.

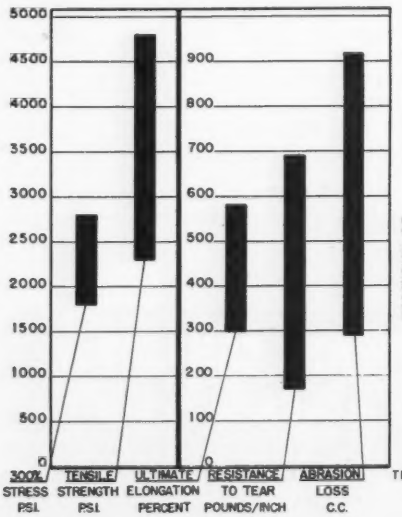

Figure 7: Range of Properties for 70 Shore Natural Rubber

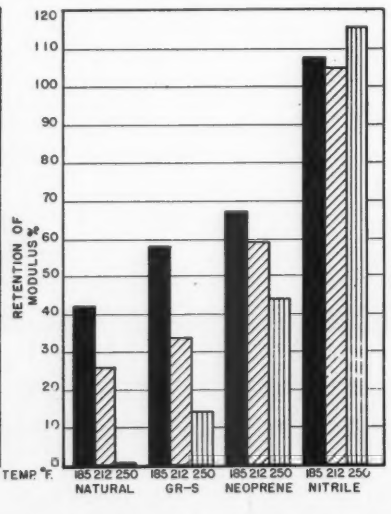

Figure 8: Retention of 200% Modulus for Indicated Polymers Aged 70 Hours in ASTM #3 Oil

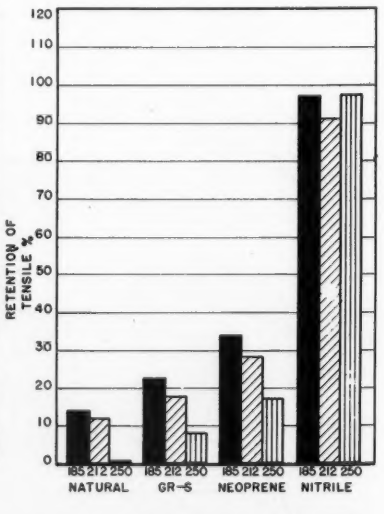

Figure 9: Retention of Tensile Strength for Indicated Polymers Aged 70 Hours in ASTM #3 Oil

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Test samples were immersed in a standard testing oil, ASTM #3, for periods of seventy hours at three temperature levels: 185° F., 212° F., and 250° F. This oil is comparable to the most adverse fluids used in oil base muds. Following this aging period, these samples were tested again to determine the per cent of the physical properties retained. The results of these tests are shown in Figures 8 through 10.

Oftentimes the measurement of volume change is used synonymously with the term "oil resistance." Inasmuch as volume change is only one of the many factors in oil resistance, modulus and tensile strength are also shown. These factors are equally critical in materials used for drill pipe protectors. If the action of oil reduced the modulus excessively, it would cause slipping of the protector on the pipe. As the tensile strength decreases the general quality of the material is reduced. It is also readily seen that if the volume increased beyond reasonable limits, the annular space, between the protector and the casing, would be restricted or restrict the return flow of mud.

Analysis of these tests show that natural rubber is affected to the greatest extent by the oil. It is followed closely by GR-S which also shows large loss of physical properties as well as a high volume increase. Neoprene is affected considerably less than either natural rubber or GR-S, and hence its oft-

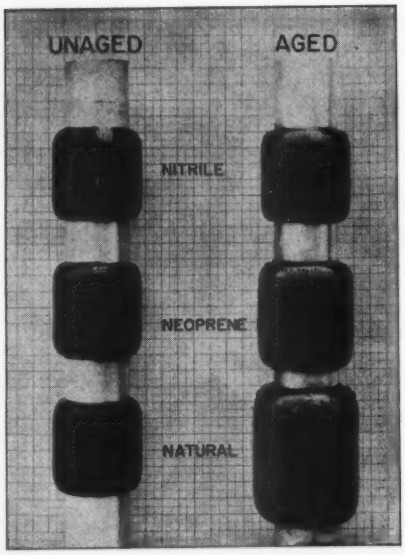

Figure 11: Results of Oil Aging 7 days at 250°F. in ASTM #3 Oil

referred to quality of being oil resistant. The material least affected by oil in this group is the nitrile rubber.

A variable not shown in this work is the effect of duration of immersion in oil at a given temperature. Both nitrile and neoprene rubbers will reach equilibrium with respect to change in physical properties in a relatively short period of time. Natural rubber will continue to swell and eventually disintegrate GR-S also continues to swell, but resists disintegration for a longer period of time than does natural rubber.

That the overall effect of oil resistance might be seen, a natural, a neoprene and a nitrile rubber protector were installed on a pipe and immersed for seven days in oil at 250° F. This pipe was removed from the oil bath and compared with a pipe containing three protectors which had not been oil-aged. The results of this test are shown in Figure 11.

TEMPERATURE:

The effect of temperature on these materials is quite striking. It has its greatest effect on natural rubber. At 250° F. natural rubber has disintegrated beyond the point where its physical properties could be measured. Temperature takes its next greatest toll on GR-S, followed by neoprene and affects nitrile rubber the least.

TENSION:

Having determined the effect of oil, the next step was to consider the effect of tension. As the preceding data show, oil drastically affects the retention of physical properties and it was advisable to investigate first the effect of tension in water where the disintegrating effect of oil would not be present. As the temperature effect was clearly shown in charts 8 through 10, it is obvious that temperature must be varied when evaluating tension fatigue. Therefore, these tests were conducted at both 185°F. and 250°F. The effect of tension was determined by placing samples of the indicated compounds in clamps and

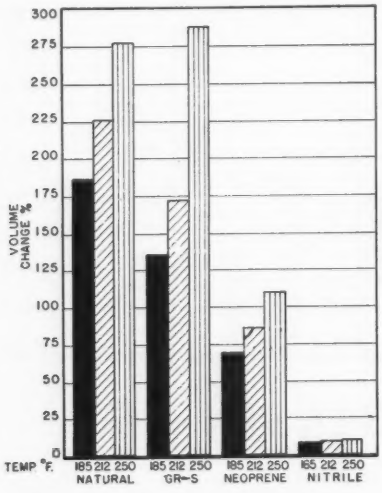

Figure 10: Percent Volume Change for Indicated Polymers Aged 70 Hours in ASTM #3 Oil

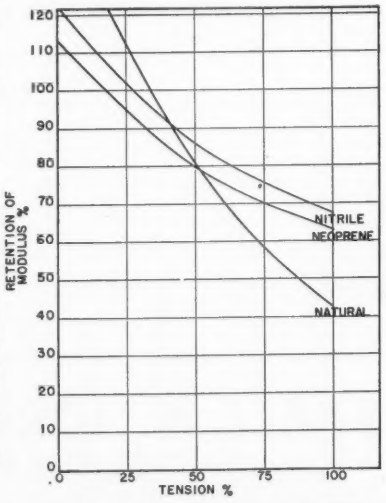

Figure 12: Percent Retention of 200% Modulus When Aged Under Different Degrees of Tension in Water 70 Hours at 185°F.

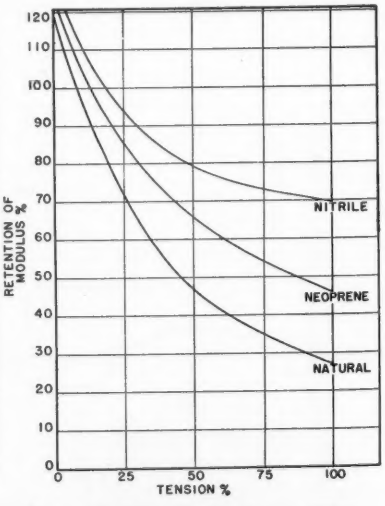

Figure 13: Percent Retention of 200% Modulus When Aged Under Different Degrees of Tension in Water 70 Hours at 250°F.

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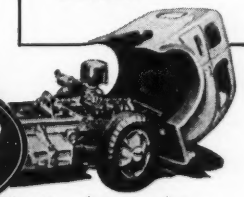

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elongating them to 25%, 50%, 75% and 100% tension. These clamps, along with samples suspended at 0% tension, were immersed in the testing medium (water) for seventy hours.

It has been shown in earlier work in this laboratory, that the amount of grip of a protector on the drill pipe is directly proportional to the modulus. The change of other physical properties during aging is proportional to the change in modulus. Therefore, the effect of tension on modulus is of acute concern. This is shown in Figures 12 and 13. These figures show that at both temperatures, tension produces its most deteriorating effect on natural rubber. At the lower temperature, 185° F., both neoprene and nitrile withstand the effect of tension to the same extent. When the temperature is increased to 250° F., the effect of heat on materials under tension, as seen by comparing figure 13 to 12, is most destructive on natural rubber, second on neoprene and last on nitrile.

Following the completion of these tests, the same procedure was repeated on neoprene and nitrile rubbers, using ASTM #3 oil as the medium. Natural was not tested because it was so severely attacked by oil. The results of these determinations are shown in figures 14 and 15. When comparing the retention of modulus in figure 14 with 12 (both at 185° F), nitrile retains its properties to the greatest extent because it is least affected by oil. Also, comparing the retention of modulus on chart 15 with 14, nitrile again retains its properties to the greatest extent because it is least affected by increased temperature.

These results are the cumulative effect of oil, temperature and tension on the indicated polymers, and are the results expected in view of nitrile's superior performance with respect to heat and oil.

DESIGN:

The logical consequence of these tests on tension was the application of these results to protector design. The curves described the function of fatigue in terms of modulus change under tension. It then became apparent that if the installed tension of the protector could be reduced, the physical properties would be retained to a greater extent. This theory was tested in actual field operation, and was found to produce the desired results. This principle was enlarged to relieve further tension on the ends of the protectors which were the areas where failure normally started. This produced a protector which has given phenomenally improved field service.

The preceding discussion of casing protectors was considered in some detail for the purpose of showing the necessity of thorough consideration of the conditions under which the rubber part must function, also, to stress the importance of judicious choice of materials for the particular job, and to consider the proper design of the part in question with relation to the physical properties and the ability of the various materials to retain these properties during service.

The importance of some of the other physical properties might best be indicated by a brief description of several other rubber parts used in the drilling industry.

PIPE WIPERS:

The two products included in this class are pipe wipers and Kelley wipers. The physical properties required in these products are quite different from those encountered in casing protectors. One of the primary requisites of a wiper is that the material used must have high resilience. This is necessary for the part to wipe efficiently, for as tool joints and protectors pass through the wiper it must quickly regain its nominal diameter so that it may wipe the pipe without leaving spaces of mud or oil immediately below the tool joints. Of equal or greater importance in a wiper is the quality of tear resistance. Inspection of Figure 4 reveals a wide divergence of values for tear resistance among the various polymers. With respect to this property natural rubber is far superior to any other. For this particular reason, coupled with its extremely high resilience, it has been more widely used than any other material in wipers. Natural rubber combines not only excellent tear resistance with high resilience, but also under these conditions as a

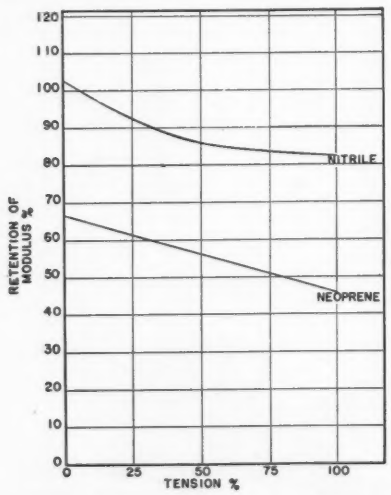


Figure 14: Percent Retention of 200% Modulus When Aged in ASTM #3 Oil 70 Hours at 185° F.

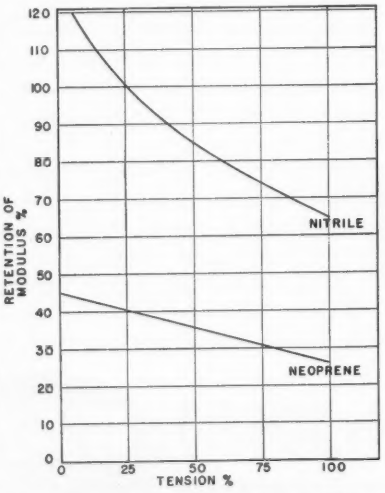


Figure 15: Percent Retention of 200% Modulus When Aged in ASTM #3 Oil 70 Hours at 250° F.

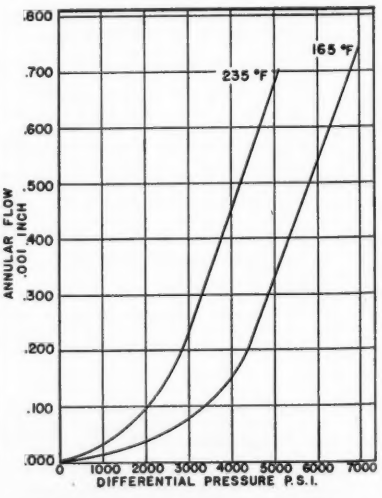
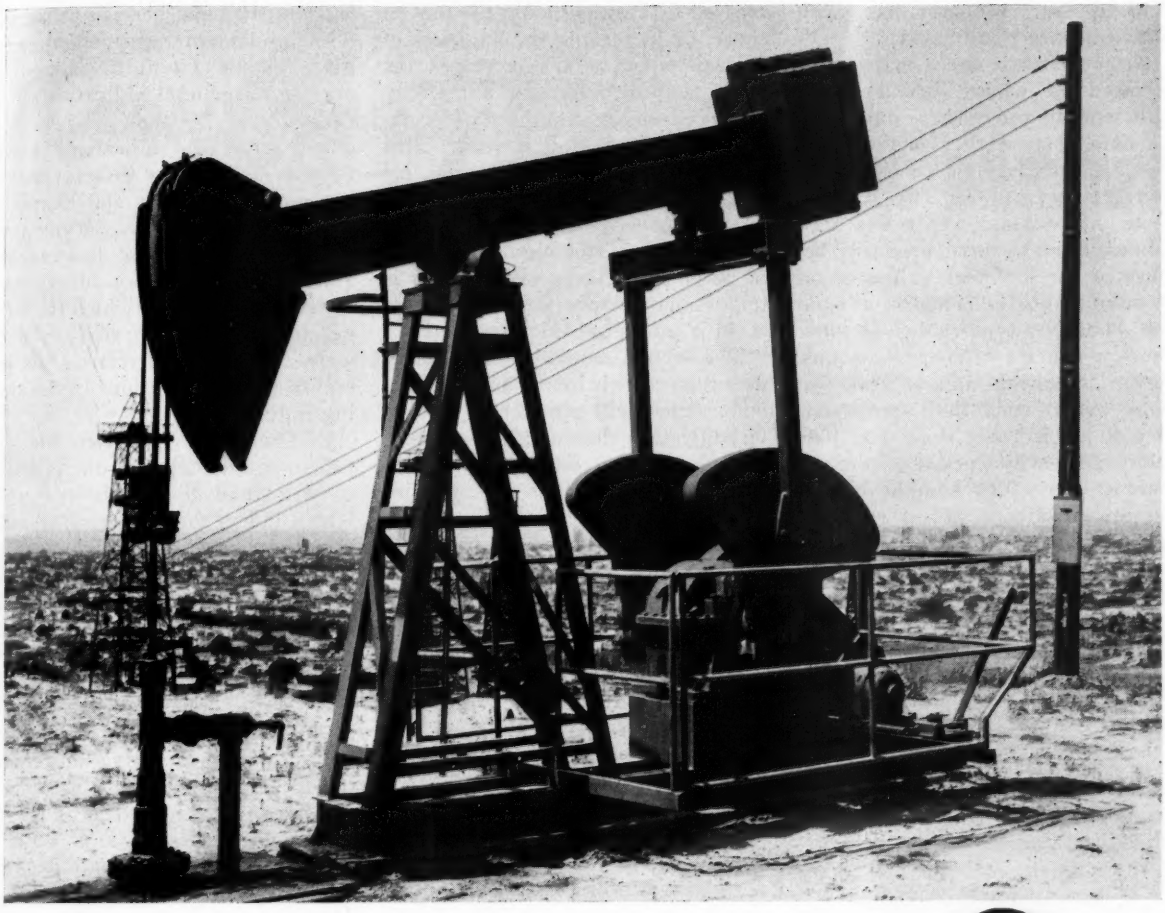


Figure 16: Annular Flow of 80 Shore Nitrile Test Packers Versus Pressure at 165° F. and 235°F.



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third necessary property, has excellent resistance to abrasion.

The need arose for a material to be used as wipers which would withstand oil and oil base muds. As the data in an earlier section have shown, natural rubber has extremely poor resistance to oil. This problem of an oil resistant wiper has been a difficult one to solve, primarily because of the low tear values of oil resistant materials. It has been found that when any type rubber polymer comes in contact with hydrocarbons, the surface in that area is weakened to an extent such that tear resistance is much lower than would be obtained if the hydrocarbon were not present. An added complication is the low resilience of oil resistant polymers. However, by careful selection of materials and compounding a wiper has been developed which is giving satisfactory service in oil base mud.

CASING PACKERS:

Packers which are used inside casing have several important requirements; i.e., the ability to withstand the action of oil and elevated temperature, and not to flow under high differential pressures.

Although the material must have the ability to flow into sealing engagement, it must be able to resist flowing or creeping caused by the differential pressure of the well. If pressures of 10,000 p.s.i. are to be handled, the rubber will require a very low degree of compression set and low plastic flow. When a material is obtained which has these properties, it should also have sufficient resilience to retain its original shape to a reasonable extent.

Both natural and neoprene have been used for packer rings. However, nitrile rubber has exhibited marked superiority for this type of application because of its excellent resistance to both oil and elevated temperature. Fortunately, this material has potentially low compression set.

The necessity of a packer which will not flow has brought forth the use of both fabrics and metal reinforcement. Whatever advantages these methods may have produced and whether they are used or not, it remains basically necessary to improve flow resistance of the rubber.

The flow of rubber may be decreased by two methods; the first of these, by increasing the hardness of the compound. This increases the modulus of compression and thereby decreases the amount of deformation caused by a unit load. This method has definite limitations for the hardness is increased by increasing the quantity of pigment or filler. When the ratio of pigment to that of polymer becomes excessive, it is impossible to mix the material or mold it into a satisfactory part.

The second method of decreasing flow resistance is by the use of chemicals which will produce a type of vulcanization that will not relax or fatigue under compression Here again temperature has the same influence as that observed in casing protectors. Figures 12 through 15 showed that as temperature increased, the rate of fatigue or stress relaxation under tension increased proportionately. In a like manner, increasing the temperature of materials under compression produces increasing fatigue or stress relaxation, which permits the material to flow.

A laboratory test device has been developed to measure the rate of flow of miniature packer rings under variable pressures and temperatures. Preliminary test data is presented in Figure 16 which shows the amount of flow into the annulus of three 80 Shore nitrile packer rings when subjected to increasing pressure. These determinations were conducted at both 165° F. and 235° F. to demonstrate the effect of temperature.

The development of a vulcanization mechanism which is resistant to compression fatigue is extremely important from another aspect. Some types of casing packers are used in testing. When removing these packers it is necessary for them to return reasonably close to their original dimensions. This is also a function of stress relaxation, for as the material relaxes it takes a set in that position and does not return completely to its original shape.

Much work remains to be done on this problem to produce satisfactory packing elements.

SUMMARY: A review of the preceding discussion shows the following:

1. Physical properties of rubber fall into two general classes; namely, fundamental and service properties. The fundamental properties, modulus, tensile strength, elongation, etc., and a general indication of the range in which they may be produced, have been indicated. It must be remembered that these properties are not independent and cannot be considered separately. Service properties, oil resistance, flex-cracking and stress fatigue are functions of the conditions under which the product must operate. Service properties were considered in relation to several of their applications in the drilling industry.

2. The effective service life of a rubber article depends on its ability to withstand the conditions under which it has to operate. For maximum service it is vitally necessary to analyze the factors which are involved, that they may be classified as to their various effects. This will facilitate laboratory evaluation of the basic requirements.

3. With conditions of service evaluated, the most suitable elastomer may be chosen. It then remains to develop from this elastomer a compound which will produce the maximum service.

4. To obtain the ultimate performance, the part must be properly designed to take full advantage of the desirable properties or to offset inherent weaknesses of even the best materials.

By careful consideration of these three basic factors; i.e., analysis of conditions and requirements, selection of proper materials, and proper design, a rubber product can be developed which will provide maximum service life.

ACKNOWLEDGMENT:

The author wishes to express appreciation to Albert F. Martin, John Grant and Donald E. Follis for their assistance in preparing this paper.

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This paper presented at the spring meeting of the Pacific Coast District, Division of Production, API, held in Los Angeles in May, 1951.

Kern County OIL NEWS

You may think it is easy to do a column. Sometimes it is easier than at other times, however. During vacation days up here in Kern it is often difficult to get confirmation. Then too, there is less excitement, inspiration and other ingredients that go to make reader interest.

SPENT A DAY out at the Kern County Land Company's well on South Coles Levee. Loffland Brothers are doing a job with a portable rig equal to a 15,000 foot well. They drilled through cement at 10,002 feet the day we were there. You should see that equipment. Better yet, you should have seen the thermometer, 107 degrees. Everything was hot as a pistol . . . even the pistol hit a rattler as it buzzed us a few feet away. We had stepped on it taking a shot of the derrick.

THE OLD RATTLESNAKE was blinded by July's sun. When he was blasted he crawled out of his skin . . . shook his 12 noisemakers and curled up for his tail to die which, they said, would not be until sundown.

GASOLINE RATIONING while predicted to be unrationed last month, is this month predicted to be closer than you think. So say Kernoilwigs.

KERN COUNTY TEXANS are talking about their big MATADOR ranch again. Proud of their 800,000 acres, Texans even in Kern know that it does not exceed the big King Ranch. Kern County Land Company exceeds a million acres we are informed. However, KCL's AL TROWBRIDGE tells us that this is not all in one piece. Most thing Kerntexanos don't know and that is ownership is vested in Scotland's Dundee. Last week we heard it was sold to Englishmen. This week we heard that new ownership with Matador's brass administrators who are Texans, plan . . . to break up the ranch into small holdings.

MATADOR, unlike KCL, has no oil within an hour and a half drive. Yet KCL's CARL MELCHER . . . reports that doesn't matter much, there is probably plenty within a couple miles straight down. The mineral rights have been reserved on a 50/50 basis, we are told.

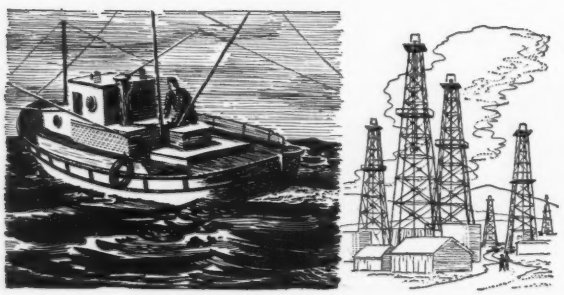
PICNICS by Richfield in the past have never near matched the one held last month up Grapevine Canyon. Over 3000 persons were present. JOHN WOLD, the Richfield Reporter, was one of the great features of the day. Millions had heard him . . . few had ever seen him. "MONTY" MONTGOMERY, vice president of Richfield Oil Corporation, gave a friendly message to the employees . . . reported to them Richfield was now the second largest producer in California . . . bade them all a "good-good-time," picked up the expense check for the picnic and hailed a "farewell" late out of the picturesque mountain setting and home to Los ANGELES.

HERE WE ARE MAKING OIL HISTORY: Kern County Land Company's #5612 at South Cole's Levee in Paloma fields drilling out of cement with Loffland Brothers. A. E. HOLDEN (Cotton himself was not present at the time), but Drilling Foreman (standing) P. J. MOORE; driller, A. E. SYMONS; rotary helper, DICK NIPPELL; while (sitting) W. T. WORK, derrickman; PREMO CAVELLERO, cathead; and REX KERR, helper helped make the news.

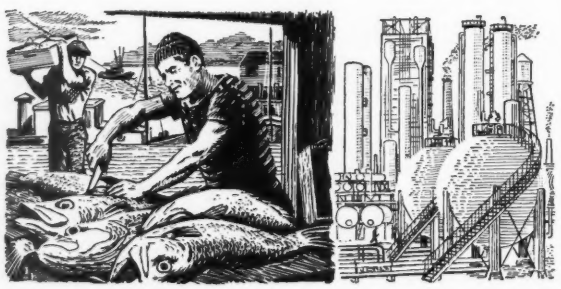
"What's this 'integration' they're attacking you for?"

One of the complaints *now made about big companies like Standard Oil Company of California is that they practice "integration". This word is made to sound so evil that you may wonder what it means as it's used in this case.*

The fact is that integration is common in American businesses both large and small. They use it as a natural part of their system of increasing efficiency, cutting costs and improving products. Integration doesn't make a *good* company *bad*. To understand integration at a glance, look at this parallel:

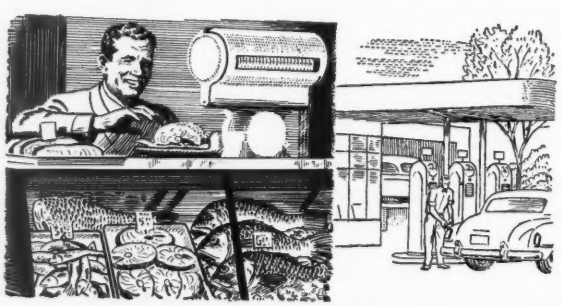


A fisherman takes his boat onto the ocean and makes his catch. Standard discovers oil and brings it up out of the ground. If both then *sell*—the fisherman to a buyer at wharfside, and Standard to some buyer at the well—there's no integration. But suppose each takes the next step . . .



When the fisherman cleans his own fish, he has become an integrated business. So, too, Standard. Like him, we work to put the product into the form you want. We refine the crude oil we ourselves produce—turn it into gasoline, lubricants, chemicals, and all the rest. This is integration.

If the fisherman now carries his cleaned catch to the market-place, he is further integrated, for he is now also in the transportation business . . . as is Standard when we operate our own pipelines and tankers to carry oil from well to refinery, or refined products to areas where they'll be used.



And if the fisherman then sells his product through a store of his own, he completes his integration. Standard does it, too, through Company-owned stations (about 1 in 7 stations where Chevron gasolines are sold). Integration helps us do better for you and the nation, and so for ourselves.

I'd Like to Know . . . Many people write to Standard asking pertinent questions about the Company. We answer all letters individually, but some points seem of general interest. We take this way of discussing them for every one. If you have a question, we urge you to write in care of: "I'd Like to Know," 225 Bush Street, San Francisco 20, California.

STANDARD OIL COMPANY OF CALIFORNIA

• plans ahead to serve you better

SOME OF THE ODD & ENDS reveal to us that MASTER MECHANIC Bill Dingboom from Lebec's Richfield Oil Company's station has moved to Bakersfield. Reason: Retired. Best wishes to Bill and the Mrs. HALLIBURTON OIL WELL CEMENTING CO. recently put Wayne Jones on the payroll for that company. SCHLUMBERGER added DAVE SOROS to their payroll. UNION OIL COMPANY has a new micropaleontologist, ROBERT F. LAIRD, from Hollywood. He and Robert Jr. will, with Bobby's mother, make their home in the new Westchester tract in Bakersfield.

TRANSPORTATION supervisor for Union is ART McDOUGAL, recently here from Los Angeles. New personnel director for Shell is JOHN P. RUBY from San Marino. The RUBY'S have three boys . . .Jim John and Jeff.

CHIEF CLERK for Richfield, MARTIN STRUEBING is from Illinois and we met them at the picnic. WM. B. WILEY is recently employed by EASTMAN OIL WELL SURVEY . . . as assistant engineer.

QUICKLY QUELLED oilfield blaze at Maricopa Station for the Standard Oil Company saved about $2500.00 in property despite damage over a $1000.00 before the County Fire Department could get to the property. The fire broke out at 3:00 a.m. in the morning the last day of July and was one of many fires in Kern County over that week end. Efficiency of the county fire department this year has saved oilmen several thousands of dollars.

TAFT IS ELATED over the news from two test wells. One well by Standard four miles northwest of the city brought in as much excitement as anything else. Then up on Taft's 25 Hill, Robert S. Lytle is preparing to drill the deep test well in the Gonyer Anticline. Either well, if successful, will effect the drilling operations in Taft territory for many months to come.

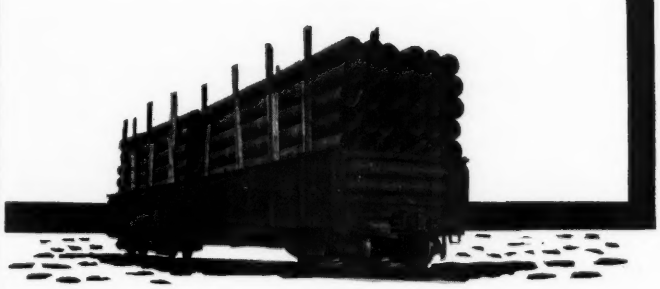
VETERAN TRAINING bill operative until 1956 is still not taken advantage of by many Kern Oilwig G. I.'s. Some recently applied, however, and most applicants are requesting special training programs. Many G.I.'s who were in the oilfields as roughnecks and what have you, have now secured excellent technical positions.

SPEAKING OF G. I. TRAINING . . . our Third District Supervisor . . . FLOYD MING . . . had his first solo flight the other day as a result of taking a short training course. Incidentally, Supervisor Ming leaves for Milwaukee where the DAV's have proposed him for the National Commandership of that Veterans' organization. Congratulations.

WHAT'S IN A NAME . . . sometimes errors in spelling . . . sometimes difficulty in remembering it . . . However, M. J. and M. M. Oil Company has helped us out . . . Now it is the MJM&M Oil Company.

TAKES ON NEW PERSONNEL. Kern County Home Farm & Business Owners Council has for its new employee a Researcher and Public Relations man. Larry Bennett, formerly with the County Administration Office. He worked with Walter Mansfield, County Administrator, in revamping the experts' office for the efficient organization of

CONDUCTOR PIPE



any *Diameter*
any *Length*
any *Quantity*

CONDUCTOR PIPE of any diameter is immediately available at WoSco at all times. Common diameters are stocked—special orders are made up to your specifications in Western Oilfields Supply Co. shops without delay. Save time and money by just calling WoSco!

IMMEDIATELY AVAILABLE

WoSco has completed 17 years of successful pipeline rental service without an increase in rental service rates!

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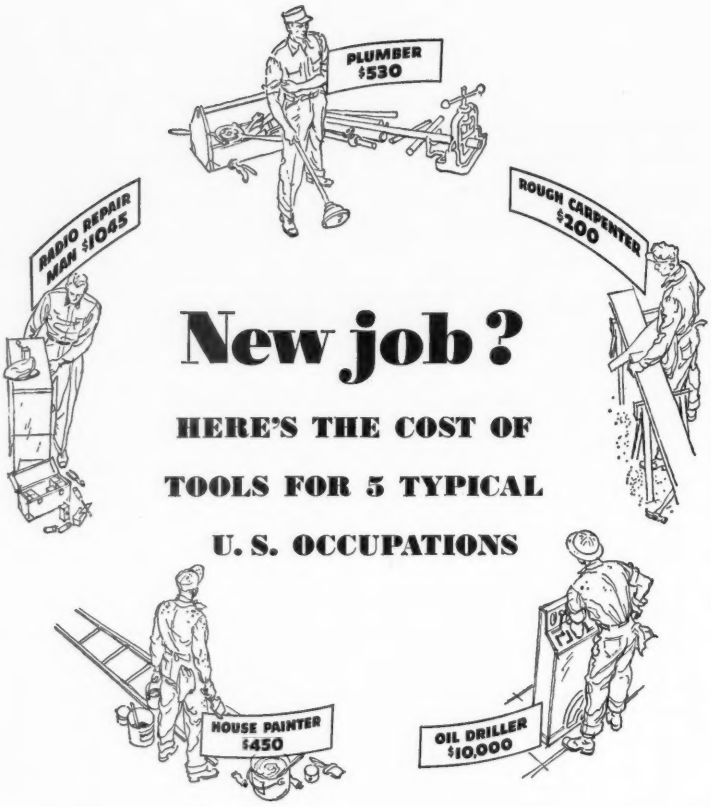
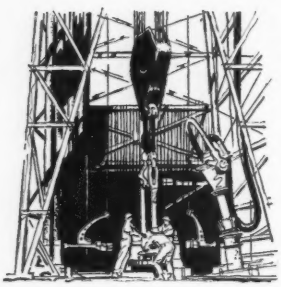
WESTERN OILFIELDS SUPPLY CO.



New job?

HERE'S THE COST OF TOOLS FOR 5 TYPICAL U. S. OCCUPATIONS

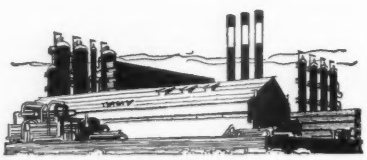
1. It takes all kinds of tools to keep America running and all kinds of tools to keep Americans employed. In many jobs the cost of these tools is relatively little. So almost any man can provide them for himself. In others, the cost is great. So in order for a man to put his talents to work, he needs help in the form of capital from others.



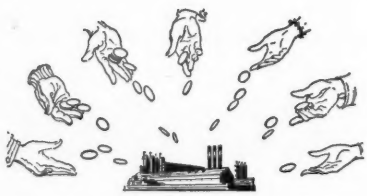
2. This is one of the main reasons why we need all sizes of businesses in America —big, medium and small. The average oil well drilling rig, for example, costs about $200,000. For the 20 men who make up its 4 crews, this represents a tool investment of $10,000 per man.

3. High-cost tools are typical of the oil business. So is the large amount of capital required for raw-material supplies, transportation systems, etc. Our average investment at Union Oil, for example, is $67,000 (in refineries, ships, tools, rigs, oil lands, etc.) for each one of our 7974 employees.

Sources for tool costs: "Selecting and Operating a Business of Your Own," by G. E. Larson in *Survey of Current Business;* Painters, Decorators & Paperhangers of America District Council, A. F. of L.; Carpenter's District Council of Los Angeles County, A. F. of L.; Union Oil Company of California.



4. That's why you find many *big* companies in the oil industry. A rough carpenter can set himself up in business without outside help. But the only way we could have financed the $67,000 worth of tools, equipment and raw-material supplies that are required for each of our employees was by pooling the money of a lot of people.



5. This pooling process resulted in a corporation known as Union Oil Company, owned by 36,012 individual stockholders. (The largest one of our stockholders owns less than 1¾% of the total stock of the company.) By some standards Union Oil Company is big. By others it is small.* But big or small, its size is a direct result of the economic functions it has to perform.

**The U. S. government, for example, is so much bigger than Union Oil Company that it takes in and puts out almost as much money* every day *as Union does* in an entire year.

UNION OIL COMPANY
OF CALIFORNIA

INCORPORATED IN CALIFORNIA, OCTOBER 17, 1890

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 17, Calif.

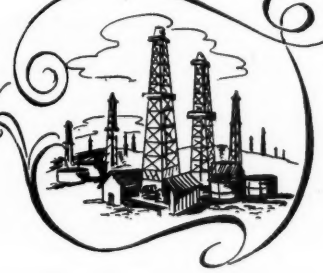
Manufacturers of Royal Triton, the amazing purple oil.

governmental expenditures of the county. The KCHFBOC did an outstanding job as you know with tax reduction under the leadership of Harry Hopkins Sr. Larry is on the other side of the fence now and will be helpful to mutual interests. Good luck, Larry.

SUDDEN DEATH came to one of the oilfields well known welders, who recently went into business for himself. GEORGE S. ISOLA was working on a cable that snapped and catapulted him into the air with a force that killed him instantly, one day last week. He was our good neighbor and is mourned by his fine family of three children and his wife, at a most untimely period.

LOS ANGELES AND KERN COUNTIES got together the other fortnight or so ago and exchanged some facts and figures that will make them both "get ideas." It was no hot air blast replete with fine sounding phrases of pretty syllables and dubious meaning. It was a report of facts and avenues of approach to the problems involved. Both Roger Jessup and Andy Noon were there to represent their respective political subdivisions. Highlight of the conference disclosed among many things an opportunity for Los Angeles to reduce off-season unemployed labor normally on tax relief rolls for the most part. Kern produces enough to feed its neighbor and its opportunity for oil and minerals should and does attract the Angel City. It is up to Kern to carry on . . . all of its people . . . not just a firebrand type of any one man to stir things up. Recreational resources for Los Angeles' benefit are untapped but sorely needed. Establishment of branch plants from Los Angeles was

NATIONAL ADVERTISING for Johnson Valve Supply Company comes naturally. Here we see 65 Texas School "marms" from an oil county in Texas posing either purposely or accidently in front of OWEN JOHNSON'S Valve Supply Company. Each one was an automatic member of the Texas Chamber of Commerce and after they heard Owen they called him their "kinfolk."



Serving
12,000 Customers
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KERN COUNTY
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The BEST OVERSHOT is the RIGHT BOWEN OVERSHOT

All Bowen Overshots have the advantages of—easy fish engagement, full grapple grip, positive instant release and full high pressure circulation through the fish. But, be sure you have the *right* Bowen Overshot on your rig floor before you start drilling . . . one that will engage and pack off any part of *your* drilling string without change or adjustment.

SERIES	SPECIAL USE	CATCHES AND PACKS OFF WITHOUT ADJUSTMENT
Series 150 (1 Bowl)	Ideal for external flush drill pipe	One specific size pipe, external upset section, coupling, tool joint and/or drill collar.
Series 200 (2 Bowl)	Designed for internal upset drill pipe	Either drill pipe or tool joint.
Series 300 (3 Bowl)	Designed for oversize drill collars used with internal upset drill pipe	Either drill pipe, tool joint or oversize drill collar.
Series 350 (3 Bowl)	Designed for external upset drill pipe	Either drill pipe, external upset section or tool joint.
Series 425 (4 Bowl)	Designed for oversize drill collars used with external upset drill pipe.	Either drill pipe, external upset section, tool joint or oversize drill collar.

Contact your nearest Bowen Service Store or Write Direct for Full Information

BOWEN FISHING TOOL COMPANY
SANTA FE SPRINGS, CALIFORNIA
VENTURA • BAKERSFIELD • AVENAL • SANTA MARIA
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proven practical in the report from Kern.

NEW ADDRESS of the PACIFIC WESTERN OIL COMPANY is in the Brower Building. It changed its offices from Oildale to the convenient downtown Bakersfield location where more spacious quarters were obtained.

WEDDING BELLS rang for ROBERT F. BOON of the Shell Oil Company, when he married Miss Irma Delores Matherly, last month in a beautiful ceremony at the Little Chapel of Sacred Memories.

BAKERSFIELD INN MANAGER PASSES: Joseph Youngblood, formerly world famous Olympic member of the ski team representing Switzerland, died suddenly last month. He was a great favorite with Kern and California Oilwigs, and his passing will be observed by scores, who liked his popularly catering policies and especially the service. GEORGE CUNIN will succeed him at the Inn. Cunin was with El Tejon for 15 years or more before going to Bakersfield's nationally known hostelry.

WHILE THIS IS NOT OIL, every oilman we ever met is interested in the Central Valley Project. This month they saw the Terminus Celebration of the Friant Kern Canal where it will soon have its confluence with Kern River. It was completed to the river early last spring. The Reclamation Bureau held a ten days' celebration event when it turned the waters of the Sacramento into the San Joaquin Valley from Shasta Dam. It took ten days for the water to reach Kern, altho from Millerton Lake (San Joaquin River Dam at Friant above Fresno) water had already reached Kern. The new water is exchange water to Tracy where it is pumped to replenish San Joaquin River water, so that Kern may legally have the San Joaquin liquid. Governor Warren officiated with the Bureau of Reclamation Officials. County Supervisor and leading citizens together with the Californian and several civic organizations participated. On the banks of the canal every other person was identified with the oil industry, thus proving the interest of the industry.

OIL WILDCATTING has hit the San Joaquin Valley. Talk up at Fresno, Kerman, Lindsay and Porterville was accelerated when test talks revealed plans to test out in cotton fields, orchards, and pasture lands. Elmer C. von Glahn who started it all is having his usual audience of interest. He opened a new field with a 7200 foot wildcatter in the Camden area south of Fresno and touched off a flock of leasewigs that are outdoing the old majors. At least a dozen well known oilmen are marshalling forces to drill.

BORN: To Mr. and Mrs. Garland Doyle Morris of Fellows' CCMO, a son, Gregory Dale Morris.

OTHER ODDS & ENDS: From Elsinore . . . . ROBERT L. WHITFIELD . . . Western Gulf Oil Company, to office personnel. To Richfield from Taft . . . Ivan Nichols . . . oil tester. SEISMOLOGIST Willard F. Burke from Berkeley for Shell Oil Company. CLERK for Norwalk Oil Company . . . WAYNE RUNNELS . . . from Taft to Bakersfield. COMPUTER for Geophysical Company . . . JOHN L. MELTON from Santa Paula. A VICE PRESI-

- A Competent Staff of more than 20 Geologists and Petroleum Engineers
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These factors mean SERVICE PLUS on the logging requirements of your important Wildcat Wells in California.

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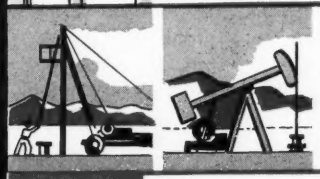
CONSERVE STEEL, AVOID LOST PRODUCTION,

with KONTOL

KONTOL
conserves steel

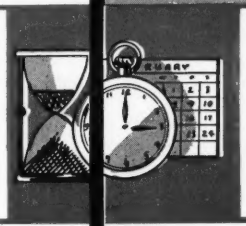
Kontol Corrosion Preventive mixes with the well fluids and adsorbs on the metal surfaces of production equipment as a tough film. This Kontol film prevents attack by corrosive elements, prolonging the useful life of production equipment.

KONTOL ***prevents production stoppages***



By preventing corrosion damage, Kontol helps to keep wells on production. Some wells now treated with Kontol stay on the pump for six months without a shutdown—they formerly were down once a month or oftener.

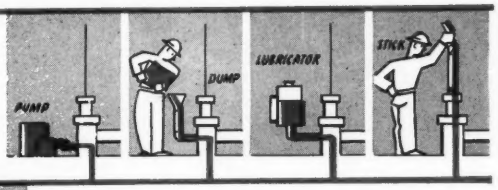
KONTOL
saves time



Saving of lease time is the result of the many advantages of Kontol. Of course, keeping the well on production is the most outstanding, but there are many others. Kontol is easy to use, this fact alone is a time-saver. The use of Kontol does not complicate demulsification procedures. Kontol does not deposit precipitates which may plug producing or water disposal formations.

KONTOL
is easy to use

Kontol is simple to use. It can be pumped, dumped, lubricated or dropped down the well in solid stick form.



KONTOL
is safe to use

Kontol is non-poisonous, it does not give off offensive or dangerous fumes. No bulky protective equipment such as aprons, gloves, goggles or masks are required in its handling.

KONTOL
does not complicate production routine

Kontol does not cause emulsion difficulties. Emulsified crudes from Kontol-protected wells respond to the usual demulsification procedures. Kontol does not deposit precipitates which may plug producing or water-disposal wells.

KONTOL

a product of the **TRETOLITE COMPANY**

ST. LOUIS 19, MISSOURI • LOS ANGELES 22, CALIF.

Chemicals for the Petroleum Industry

CORROSION INHIBITION • DEHYDRATING • DESALTING

SCALE PREVENTION • WATER DE-OILING • PARAFFIN REMOVAL

K51-2

DENT for Bell Oil Company from Santa Maria . . . Kenneth R. Evans.

OUR OLD FRIEND George Gill who used to run Tejon Refinery . . . went to Sacramento with transportation firm of his own . . . . now back to Kern County, part owner Cal Crete. Welcome back George, and JILL (the better half) and Garry the heir to the Gill estate.

FROM COLFAX, West Virginia comes Richard E. Shaffer as geologist for the Richfield. Also for petroleum engineer for the same firm is recently arrived from Cambridge, Massachusetts, John B. Vallely. Dave Gessaman came here from Petaluma to be a part of the clerical force for Standard.

KERN CONTINUES to gain in oil industry population. This offsets demand from metropolitan areas for defense workers and skilled employees . . . they say.

"TOOL PUSHER PARTY" with well known C. A. COSBY receiving a wrist watch as a parting gift from his fellow workers with the Texas Company, was the way they said it to recognize 30 years of service. J. H. PULS, division manager production department of Texaco, Pacific Coast division, presented the watch at the Bakersfield Inn event, late last month.

WE WERE TALKING to Independent Exploration Company representatives one day last month. They told us that many people suggested recently that they look around for some heavy crude since the price is so much more attractive than it used to be. Otto Hackel, local geologist got hold of 160 acres of land from Kramer Brothers and soon after Independent had increased its production around 300 barrels a day. The Kramer lease was frowned upon by most operators and two dry holes near the property were less assuring. One never knows . . . and come to think of it Kramers were employed by a major oil company for years.

GOLDEN BEAR OIL COMPANY which manufactures such blendable lube, drilled a dry hole near Kerman at 5700 feet but will move back in, according to local officials here. We were told also that the Bureau of Reclamation in its canal digging turned up some firm oil sand that really started the things up Main Street Way of California.

FREE PORT IN NEVADA: Wall Street Journal's Reno, Nevada display advertising this month has made oilwig "talk-talk," but no quick jumps to rent oil storage since Elko is not a big enough province of oil to give serious study to such an idea.

FRED OWEN has been in the news with his Ethel D lease. Once a great quarter section of oil producing land it had its rise and decline but steady production. Now, with drilling additional 1000 feet by General Petroleum in fractured shale, Fred says that the show is on for a rejuvenation of the old field . . . after nearly a half century.

HOW OFTEN have you looked at the passenger list of an airliner crackup and never found the name of anyone you knew. Nearest we ever came was early last month when we recognized someone with whom we had talked less than twenty hours before.

PALACE HOTEL office of United Air Lines opened up its office for business and when we proceeded immediately to the reservations we met J. F. SHUSTER who talked with us and purchased space on the ill fated ship covering Flight 610. He was a tall, well mannered, good looking executive in his early fifties. He asked us if we thought the first ship out would be in shipshape condition. It seemed a foreboding question and we replied we were taking the second one out. You know the rest.

PLAYED GOLF WITH our good friend JOHN SPEIR the other day. It was about a hundred in the shade, but there is no shade in Stockdale. Enjoyable game, not so sociable a score, but no one was upset about it. JOHN did alright, the cool breezes were kind to us both. More interesting than the score was the news about his two daughters June and Shirley. June is in North Carolina in boot camp as a Marine. Shirley married into the Bledsoe family, well known in Kern County. She is leaving for El Paso where Ward Bledsoe is about to enter officers training camp. Just talked to Mrs. Bledsoe and we did so belatedly as we saw the son in El Paso a few fortnights ago while on our goodwill trip talking (arguing) oil resources before El Paso's elegant chamber of commerce.

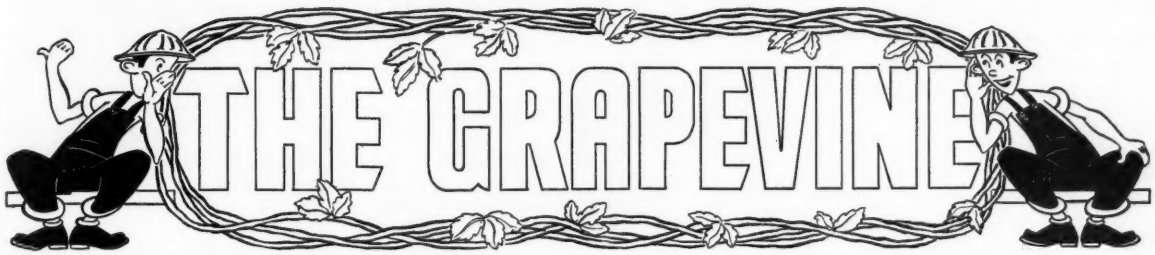
SPEAKING OF JOHN SPEIR, DRILLING CONTRACTORS, we learned today that a day contract is being consummated with WESTERN GULF COMPANY out at PALOMA. Nice deal looks like. JOHN told us that at last the try or tries at CASTAIC have terminated. The Paloma is another wildcat project more or less and another try.

SAW CHARLEY SALZER out at Stockdale . . . He was very nice to us. He should be, as all County Supervisors are very nice and know how to be. He asked us about our score but in return our query about his, indicated that he is the Public Relations part of golf and not the score maker. He is interested in the skill research and estimates of the results of the boys who do the work with the pitch and putter. He is rather a coach at the green.

ONE OF THE BEST displays of the decade is the one, in our opinion, which is tendered by the WESTERN OILFIELDS SUPPLY COMPANY. It has to do, in case you have not read it, with the price of rental pipe. "RENTAL PIPE HAS NOT INCREASED IN PRICE" and that is really something significant, and it should build up "wildcat venture capital" as well as enthusiasm.

Oil Equipment Manual in Offing

A manual of inventory procedure will be prepared by the Long Beach Harbor Department as a means of keeping an accurate record of oil field equipment and materials used to develop some 600 wells in the harbor district. Harbor officials plan to use an inventory manual put out by Richfield Oil Corporation as a guide in adopting one of its own. Under terms of the drilling contract with the Harbor Department, the oil companies furnish the equipment and materials necessary, which then duly become the property of the department. By June, 1952, an accurate valuation of all oil field tools and materials is expected to be available.



With another 120 seekers after the light we journeyed out to Union Oil Company's picnic ground on Saturday, August 5, 1951, to attend a classic convocation, known as Woody's Barbecue. Before we barge into a technical dissertation on this intriguing subject, however, perhaps we should explain that Woody is really E. E. Wood, former superintendent of stores and salvage for General Petroleum Corporation, and a widely acquainted and highly regarded individual in the derrick groves. Woody was a resident of the Republic of Mexico for some time where he was also engaged in the supervision of stores and such for the disciples of Pegasus. Being a sociable sort of individual, he organized a little club some years ago. This was originally for the exchange of information among certain people with similar interests, but it has since grown extensively and now seems to just consist of Woody's friends. He has been retired from GP for some time but the Club still meets monthly and throws an outdoor whingding annually—much to the obvious delight of its members.

It was hotter than $700 when we arrived in the middle of this fracas a few seconds ahead of John Augsburger, the new Kobe rep, and E. W. Randolph, the Century Oil Company executive, a pair of very fine gentlemen and real oil field pioneers to boot. After exchanging greetings we all meandered over to a marquee where, bless our soul, if we weren't welcomed, and very generously too, by that brace of welcomers extraordinary, Mark Banks, the affable Republic Supplier, and his platinum blond aide, Bud Russell, from the same institution. Then we were checked in by Registrar Vern Foster, a personable chap from GP stores who helped us no end during the remainder of the day. So also did Mark and Bud without whose frequent ministrations we would probably have shrivelled up and died.

Having checked in we scampered about in our usual inane manner, visiting with Woody woodpeckers all over the place.

We early stumbled into Dick Whelan, the Youngstown Steel Products chap who spends such spare time as he can muster making dust clouds in sand traps or trying to beat Jascha Tuttle, the violin virtuoso, at gin rummy. Then we said hello to genial Elmer McFadden, the Macoil Corporation executive who obeys the old biblical admonition and brightens the corner where he is with his beaming countenance. Next we traded a few words of cheer with R. E. "Ed" Stearns, the Universal Consolidated veep, just after he had played 18 holes of golf and was still looking sharp as the proverbial tack. In our immediate vicinity were Dick Gray, the Taft lumber baron and pitch whiz; Ray Calhoun, proprietor of the Taft auto parks by the same name; Nappy Lewellyn, Standard's northern division purchasing biggie and apparently known to everyone at the party; Norm Taylor, one of Axelson's up-and-comers; and the Drake boys, Hud and Ted, native Angelenos, chatting with another pair of native sons, George and Frank Perry from the Crane Company. Hud is Belridge Company's purchasing agent and Ted is manager of the Petroleum Club.

Walt Duhig, the Watson-Stillman Company representative was there, looking very well after an eye operation, and we learned that he was staying in the Shangri La at Santa Monica for a few days. Monarch Engineering mustered a goodly delegation, including Walt Losk, just back from Houston and bearing greetings from our good friend Dutch Zwerneman; a pleasant looking chap, named Jim Hatch, and George Horg, erstwhile first baseman for the Cincinnati Reds. Also present with first class support was Owen Johnson, the pioneer valve manufacturer from Bakersfield, and his bodyguard, Bob Medearis and Carl Bray. Woody Archer, the Associated Piping & Engineering Company chap, was much in evidence when Big Richard and Little Joe were around, and we heard Don Cooyas, the Coast Valve & Supply Company lad giving out information that was strictly secret and seemed to have emanated from a stable at Del Mar. Frank Burt, a top representative of the Petroleum Pioneers in Taft had a busy afternoon trying to teach some of his fellow townsmen the virtues of pitch, and Dick Turner and Russ McIntire, the Baker Oil Tool delegates were equally busy dashing about renewing acquaintances. Russ is export manager and at the moment was here on a visit from New York. From Lane Wells came Rodney Durkee, president, Mort Higgs, vice president, and Jim Hughes, newly elected director, all straight to the doings from a golf match at Hacienda. Doc Hall was there too, giving an assist in the kitchen and making himself useful all around.

Then there was Jim Bogle, the tall Bethlehem fellow who is virtually mayor of Taft; Harv Craig of Republic Steel Company; Ed Embury, the trout fisherman, and Bud Trott, the fairway gouger, from the W. R. Guiberson Company. Happy returns to Dick Guiberson, incidentally, who celebrated another birthday on August 3! Ralph Jameson, Howard Supply Company, a popular member of the Hacienda Club, came to pay his respects and almost lost his reputation in a game of vessel, skipper, and gobs, a strange pastime that is played with oil country cubular goods. That last term was manufactured especially for us by Wes Sprague of Republic Supply, with whom and his buddy Steve Smith we tangled in a brief flurry of what is commonly called "expectorating in the sink." Pop Atkins, the Rasmussen proponent and his son, Frank, were there, as also were the Rising brothers, Russ and Wayne, from Ducommun, and obviously enjoying themselves no end.

We noted that delightful soul, Paul

Whiteley, sashaying hither and yon, saying hello to a raft of friends and no doubt making a raft of new ones. Then there was Ed Millaird, helping to dispense the exhilerating waters. Lee Laird, the Scottish esquire and Baash-Ross impresario, traded wisecracks with Ray Antunez, and over the way, Tom Hickey, the pipe magnate, and Hal Leedy, the Crane Valve topshot, fought to the death in a rousing gin rummy joust. We ourself tangled with a group of sharpies, including Jim Kibre, the natural gasoline biggie, in a sort of seven card monte that was as devastating as the eruption of Mount Vesuvius. We caught a fleeting glimpse of Jack Ballagh, the extruded plastic king; Dave Cranahan, the good looking Emsconian; and Al Schiltz, the compressor expert. Also managed to catch up with Glen Pitts, the Republic Supply sales chief, to wish him a happy birthday which it was for him. Then we had an intimate few minutes with Ray Love, Henry Paulsen, and Jim Griffen, all people of the highest repute and friendliest disposition.

These two incurable Nineteeners, Fred Currie and Len Price, of Copperweld and Cal-Air Products respectively, launched another gin rummy battle that waged furiously throughout most of the afternoon. Jim Barr whose main interests are the Pressed Steel Tank Company and the Sons of May First came over to exchange a few cheerful words, and meantime over his shoulder we spotted Ray Dearborn of Gilmore Steel Company; Maynard Barker, the GP automotive whiz; Ward Blackburn, former manager of Ingersoll Rand, now owner of Vernon Tool Company; Clayton Rose, a popular and right substantial Axelsonian; and that noted divot lofter, Jack Donaldson, Associated Piping & Engineering Company. We watched Rudy Sweitzer of Southwest Exploration Company try his hand with the galloping cubes and Barney Barnhart of Standard Steel Corporation, but nothing of consequence developed so we moved on.

Bill Hale, prexy of Coast Valve & Supply Company, and another sharpie with a niblick, brought out a strong delegation, including Lindy Young, who has beaten the feathers out of many a badminton bird, and Jack Gates, outstanding natatorialist which is so much more interesting than just being a swimmer. From Bethlehem of California came that well known habitue of the night spots, Jack Freeman; and another noted ambassador was Bart Kean, representing the Steel Company of the same name. A trio of Flying Horsemen we omitted to mention earlier in the proceedings were Gerald Fisher, Murray Grayson, and Joe Kieffer, all high ranked in the affections of their fellow oilers. Then there was Al Lasken of Oil Well Supply Company, a right good citizen; C. J. McLaren, Nomad, Pioneer, and extremely active delegate from the Hughes Tool Company; Ray Newton, Rasmussen Company, one of whose forbears discovered the law of gravity since when most of us find it difficult to stay on our feet; C. N. Rees of Standard Steel Corporation, no relation of Earl Rees but a nice chap just the same; B. K. Thorpe, from Mills Iron Works; and two hotshot golfers with whom we discoursed briefly—Bob "Nick" Nicholson of Jorgensen Company, and Jack Everett, a scratch handicap man from Ducommun. We took a reluctant buck away from Nick on an argument about relative ages. Whoopee!

Once or twice we saw Kenny Dale, the youthful looking Signal Oil & Gasser, making the rounds but he moved so fast we never caught up with him. Then there was another lot of lads from the stable of the Flying Horse, to wit, Wayne Dedrick, the barbecuist; Jim Kerr, also a meanie with a skillet; and Gabe Bourland whose weakness is a dark secret, at least we couldn't get a thing on him. Bob Muxlow of M&M Perforating in Taft came to the whingding direct from a golf game at Hacienda which, they say, will never look the same again. Earl Brock, the Burbank of Southwest Welding, tore himself away from his beloved garden to plant a few friendly seeds out in this fertile pasture. Earl is reputed to have the greenest thumb west of the Rockies. When he plants a dahlia bulb he has to step back mighty pronto if he

WAS ONCE A WRESTLING FAN BUT

Clarence R. McKay, Richfield Oil Corporation's manager of refineries, is a big, affable friendly sort of chap who saved himself the necessity of migrating west at a later age by being born in California. His first glimpse of this topsy-turvy old world was in Fresno, a hustling village in which the grape is a high ranking institution and the summer temperature is not so low either. He began his oil career with Tide Water Associated as a combination gauger, oil tester, and field combination gauger, oil tester, and yield clerk, and actually opened the valve that permitted the Avon refinery to receive its first barrel of crude oil. However, in order to prepare himself to better juggle the petrolic hydrocarbons, he hied back to the effete east and attached himself to the refinery division of Cities Service. Later he skipped to Pierce Oil Corporation and was superintendent at its San Spring plant for some 15 years.

Pierce Corporation was taken over by Sinclair in 1930 and there are those of us who still think that what Sinclair wanted in the deal was not the plant but C. R. McKay. Anyway, Mac remained there for another seven years and then returned to the land of endless sunshine to become manager of refineries for Richfield, the which office we understand he still administers in a very effective way. As the accompanying illustration shows, Mac has two spare time occupations—yard work and detective stories—and he has so little spare time that he indulges them both at once. He is the proprietor of a nice home in San Marino that an obstinate nature has been trying to bury in dead leaves ever since he took over and it has kept him more than busy averting this catastrophe.

He is a great lover of the more rugged sports such as football, boxing and wrestling but lost his affection for wrestling one well remembered night when an angry exponent of grunt and groan threw Gorgeous George over the ropes into his lap. It has been reported that Mac was taken to the hospital following this encounter and a specialist removed several bobby pins from the more tender portions of his anatomy. This, however, he stoutly denies. It might be mentioned in conclusion that he is mighty proud of his son, Jack, an alumnus of Oklahoma U, a sales engineer for Fluor in Texas, and the daddy of three fine new additions to the McKay Clan roster.

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doesn't want to get hit in the lower chin with a ripe blossom.

There were, of course, other interesting people convocating and consorting to the seven signs at Woody's party and they all had a splendid time, but it is doubtful if any of them had a better time than the estimable Woody himself. He works like a truck horse to see that nobody is neglected for more than a minute. The entire affair, thus, is a success in every sense of the word, so to Woody our thanks for a thoroughly diverting afternoon and our congratulations on his origination and efficient operation of a very worthwhile institution.

In one of the most constructive stag parties of the current social season, Doug Graham, eminent drilling contractor and peerless barbecuist, recently entertained an imposing cross section of the petrolic upper crust at his home in Long Beach. This soiree was called especially to honor Ed Lorehn, vice president of Cameron Iron Works, from Houston, and by all accounts a shining example of what can be accomplished with the proper equipment. Ed started with Cameron Iron Works at the time it was taken over by Jim Abercrombie, at least 30 years ago, and in the meantime has made more progress than a fishtail bit in a stratum of cheese. He is current prexy of the American Well Head Equipment Manufacturers, a regent of Houston chapter Nomads, an angler of amazing caliber (he recently caught a sailfish so large that they couldn't get the story in the newspaper), and his hunting lodge at Aransas Pass in Texas is the Mecca of all the finest sportsmen in the oil business.

Doug Graham had sampled the exquisite Lorehn hosting on divers occasions and the gathering of which we speak was by way of expressing his gratitude. With Engeniero Manuel Carrera of Empresa Fiscal Petroleo, from Lima, Peru, officiating as master of ceremonies, Ed Lorehn was presented a hand-tooled, leather-covered, Peruvian coffee table, together with some very illuminating remarks on its origin and function. Ed was knocked for the proverbial loop by this quite unexpected development but he rose to the occasion like a champion and acknowledged the kindly gesture as neatly as if he were just graduated from Toastmasters' International.

Participating in these colorful rites were several other prominent representatives of Cameron Iron Works, including Ralph Neuhaus, general sales manager of the Company, alumnus of Cornell, and close friend of Dave Faulkner, the National Supply Company top executive; Bob Farmer, oil tool sales manager, also a popular Houstonian, and a persistent frequenter of the Hollywood night spots when he gets out here to the far west. Men of distinction present to add further dignity to an already dignified gathering were G. C. Pilkington, Texas Company warehousing authority; Owen Lake, National Supply Company export expert, one of the west's leading entertainers of petrolic people from other parts of the world; Chuck Gandaubert, production superintendent for the House of Pegasus, and a much admired chap in local oil circles; Robie Robinson, production chief for Shell Oil Company at Ventura, a composed but competent individual with an easy smile and a pleasant manner; Tal Ledbetter, Union Oil Company's Basin superintendent, now pretty well settled to home operation after a couple of strenuous years in Paraguay; and Bob Cook, the recent Great Lakes Carbon Company acquisition, a Coalinga boy who made good in the deep south and now has more friends in the industry than Dale Carnegie.

Warren Johnson, the aristocratic looking Standard Oil Company southern district manager, former PPP director, and all around good citizen, came, saw, and was conquered. So also did Hearn Paschall, export representative for H. C. Smith, a much travelled individual and an active member of the Los Angeles chapter Nomads. Last in this formidable array of petrolic brass but certainly far from least was that entertaining chap, Elmer "Deck" Decker, big game fisherman, weight indicator baron, prime judge of equine gentility, and one of the founders of Los Angeles Nomads. Doug Graham did his usual excellent work at the grill and his guests are still talking about the delectable steaks with which he helped them top off a full evening of solid enjoyment.

R. S. (Bob) Lytle, one of California's most successful operators, is enjoying a well-earned vacation at Lake Tahoe. He plans to return around September 1.

W. W. (Bill) Cline, president of San Joaquin Drilling Company in Los Angeles, has returned from vacation points in northern Michigan, where he made life miserable for fish in that neck of the woods.

James D. Hughes, general sales manager for Lane-Wells Company, Los Angeles, was elected a director of the company. He has been with the company since 1939.

Field Development

Los Angeles Basin

Lopez Canyon Test Interesting

One of the most interesting test wells currently drilling in the Los Angeles Basin is the E. L. Doheny-Joe Neaves, Jr., Reeves No. 1 on Sec. 1-2n-15w. The project at last reports was at a depth below 1800 ft. and it apparently had found some showings from about 1300 ft. on down.

Prado Dam Wildcat Digs

Near Prado Dam in Riverside County, Cherrydale Oil Company's Cherrydale No. 1 wildcat on Sec. 8-3s-7w continues to drill ahead at 800 ft. Two test wells in San Bernardino County are idle at present. They are William R. Whittaker Company's Taylor-Whittaker No. 1 on Sec. 31-2s-7w in the Chino area, and John W. Brashears' Dana No. 1 on Sec. 26-1s-5w at Colton. They are down around 1825 and 2275 ft., respectively.

Aliso Canyon Test Inactive

Very uncertain is the future of Edwin W. Pauley's Wigdal No. 1 on Sec. 19-3n-16w in the Oat Mountain sector of Aliso Canyon. The test went originally to 9525 ft. and plugged back to 4900 ft. Under consideration is the next move and it would not be much of a surprise if it were abandoned.

Palmdale Try Idle

Near the town of Palmdale in Antelope Valley, James Rhoten Farned, John G. La Vally, and Walter D. Greer is idle temporarily at 196 ft. The derrick stands on Sec. 15-6n-13w.

Honor Rancho Test Runs Pipe

Texas Company's deep test on the Honor Rancho must hold promise because 5½-in. pipe has been landed and cemented on bottom at 10,086 ft. The well, Honor Rancho NCT-One No. 1, is 3783 ft. south, 1508 ft. east from the northwest corner of Sec. 6-4n-16w. The company's Honor Rancho NCT-One No. 6 is drilling below 3900 ft. on the section. Texaco's McGinnis No. 1 at this writing is still a location in the Puente area, Sec. 31-1s-10w.

Anaheim Try Drills

Continental Oil's Orange County exploratory well in the Anaheim area is making progress with the drill below 8900 ft. The well is on Sec. 5-4s-10w and known as Anaheim Comm. No. 4-1. Burke A. Thomas and Blake L. Baldwin's Pocohontas No. 1 wildcat on Sec. 13-6s-11w in the Huntington Beach sector is still idle at a depth of 2929 ft. At Corona Del Mar, Shell Oil's Irvine Four No. 51-130 on Sec. 5-7s-9w at last reports was poking ahead at 8675 ft. In the San Joaquin Hills, Shell's Irvine One No. 44-166 is engaged in cleanout operations at 9823 ft., after recovering fish.

Castaic Try Starts

Work is beginning on Continental Oil's Alexander No. 1 on Sec. 23-5n-17w in the Castaic area. In Whitney Canyon the company's Phillips No. 1 test on Sec. 6-3n-15w is mak-

Havenstrite Oil Company's Bowles No. 1 in the Edison Field. Company rig drilling. Left to right: E. C. Bachman, lead tong; J. H. Jackson, racker; S. K. Manning derrickman; R. T. Post, driller.

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ing hole ahead at 1886 ft. The Seal Beach endeavor, labeled Bixby No. 62 on Sec. 2-5s-12w, is snaking its way deeper at 8254 ft

Loma Verde Wildcat Digs

From the latest information Trigood Oil Company was dishing out earth from a depth approximating 3400 ft. in its Ayala No. 2 in the Loma Verde area. The wildcat is on Sec. 29-5n-17w, Los Angeles County.

Long Beach Try Troubled

A fishing job at this writing is troubling normal drilling operations in Rosepass Corporation's Burgess-Higby No. 1 test on Sec. 19-4s-12w in the Long Beach area. The well went to a total depth of 7299 ft. near the intersection of 32nd street and Cerritos avenue and then plugged back to 5030 ft. for completion at a point where 7-in. casing is set. Water shut off was okay at 4294 ft. but the final touch is being held up by a fishing job.

Saugus Venture Testing Showings

Testing shallow showings occupies the attention of Humble Oil and Refining with its N.L. & F. No. D-1 wildcat on Sec. 9-4n-16w in the Saugus area. Northwest of Saugus No. D-2 on the section is drilling at 1200 ft. Humble has staked location for another test in the Castaic area. It is N.L. & F. No. 7 on Sec. 24-4n-17w. The company's No. 6 on the section is sinking lower at 10,140 ft. Newhall Corp., another Humble enterprise, is drilling at 10,600 ft. on the section. Also in the Castaic area. Ted Sterling, Operator, is down 586 ft. with Rynne-Fisher No. 1 on Sec. 35-5n-17w and fishing. On Sec. 8-4n-16w, Superior Oil's N.L. & F. No. 1 test is drilling at 5576 ft.

Santa Ana Lease Scene

J. C. Theriot, independent operator, has leased 800 acres on the Cowan Heights Ranch, northeast of Santa Ana. Jack Regan is owner of the land, which has the favorable regard of several geologists. Theriot, a former resident of Orange County, probably will launch a test well

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within a couple of months. The Cowan Heights Ranch is adjacent to Lemon Heights, exclusive residential area, and the Irvine Ranch.

West Coyote Well Pumping

Standard Oil of California has completed its Murphy - Coyote No. 275 in the West Coyote field of Orange County at 6110 ft. for 130 barrels of oil a day. The 7-in. casing was set at 5640 ft.

Whittier Try Coring

At Whittier, Los Nietos Company's Whittier Crude No. 2 on Sec. 22-2s-11w is coring at 1390 ft. North of Whittier Heights, the Sam Kubetz Kline No. 1 test is idle at 1510 ft. Location is on Sec. 11-2s-11w. In the Walnut field, DeWitt Langford's Vanderhoof No. 2 exploratory venture is drilling at 2475 ft. on Sec. 3-2s-10w. In the Sansinena sector at Whittier, Union Oil's No. 41 on Sec. 29-2s-10w is redrilling at 4000 ft., after going first to a bottom of 4780 ft.

Continental Will Drill In Castaic Area

Continental Oil Company will drill on a large block of acreage 15 miles north of Castaic off the old ridge route in Sec. 20, 7N. 17W.

A deal was consummated with the Continental Oil Co. by the Elbe Co. on a participating basis in 3500 acres of the Castaic play in what is believed to be structure No. 1. The Elbe Company holds several sections of land outright in what it terms structure No. 2.

According to Mr. S. R. Robertson, Secretary of Elbe Company, Mr. Barnes spent a great deal of time in geological work in this area and located two possible oil structures and filed on some 14 sections of land. Mr. Barnes uncovered considerable outcropping of oil sands and marine substances and worked out a fault condition that should prove of great interest.

Newhall Well Digs

Sunray Oil Corporation's current development well drilling in the Newhall-Potrero field is down 7345 ft. It is on Sec. 27-4n-17w and called No. 98-5. At Potrero, Basin Oil Company of California has location made for its No. 17 on Sec. 34-2s-14w.

Saugus Try Rigs

Humble Oil & Refining is nearing the act of spudding with its N.L. & F. Co. No. D-2 on Sec. 9-4n-16w, northwest of Saugus in Los Angeles County. Location falls about 100 ft. north and 500 ft. east from the company's No. D-1 on the section.

Ridge Basin Wildcat Starts

Approximately 15 miles north of Castaic and paralleling the Ridge Route, Continental Oil Company has started work on its Elbe-USL No. 1 wildcat on Sec. 20-7n-17w. Continental has leased several thousand acres in the area and the test is likely to be closely watched in view of its ultimate effect upon a wide swath of virgin territory.

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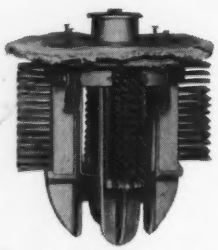

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Rio Vista Well Staked

In the Rio Vista gas field, Standard of California has staked location for Bradford Comm. No. 6 on Sec. 2-3n-3e. Texas Company also is starting a new job in the field. It is Darsie No. 1 on Sec. 17-4n-4e.

Ventura Try Spuds

Lloyd Corporation's Sence No. 3 on Sec. 20-3n-22w in the Ventura Avenue area has been spudded and is making rapid time with the drill in the shallower formations. Lloyd's W. S. No. 1 on the section has been finished and at last reports was pumping 28 barrels of net oil daily from 13,053 ft.

Sespe Well Making Hole

Louis C. Chappuis & Associates at last reports was digging at 750 ft. with No. 1 well in Sec. 13-5n-19w at Sespe. Coast Supply Company has conductor pipe in for No. 1 on Sec. 32-5n-19w.

Conejo Well Programmed

Nelson & Associates is ready to drill a fifth well in the Conejo area of Ventura County. Four wells are putting out from levels around 100 ft., with the crude testing 16 gravity. Present output of the four wells collectively is about 50 barrels a day. Location of the new job is on Sec. 33-2n-20w.

Olivera Canyon Scene of Leasing

Bent on boosting the supply of crude oil for the company's Santa Maria refinery, Douglas Oil Company has completed negotiations for the leasing of a half section of land adjoining the Olivera Canyon property. President W. G. Krieger said the new lease contains three wells which Douglas is preparing to place on production in the near future. This will give the company seven wells in that portion of the East Cat Canyon field.

Carpinteria Test Rigs Pump

With bottom of the well at 1560 ft., D. S. Fletcher's Catlin-Fletcher No. 1 wildcat on Sec. 33-4n-25w in the Carpinteria area of Santa Barbara County is awaiting pump to add the final touch. In the Figueroa Mountain area, Honolulu Oil's Mills No. 1 wildcat is redrilling at 2830 ft., after going to an original depth of 3232 ft. Drill site is on Sec. 26-8n-30w. Union Oil's Hartnell No. 12 test at Orcutt on Sec. 22-9n-34w is digging at 5730 ft.

Zaca Wells Keep Working

Tide Water Associated at present has two wells drilling in the Zaca field, Santa Barbara County. Chamberlin No. 24 on Sec. 33-8n-31w is drilling at 1640 ft. Dutton No. 103 on Sec. 29-8n-31w has reached 5875 ft.

Reyes Peak Test Coring

Standard of California's Hattie Russell No. 1 on Sec. 11-6n-23w on Reyes Peak in Ventura County is coring and drilling ahead at 7532 ft. In the Tip Top-Fresno area, Union Oil's Ex-Mission Weldon Canyon No. 3 on Sec. 3-3n-9w is ready for abandonment at 3863 ft.

Ramona Well Drills Ahead

Crestmont Oil Company's Ramona No. 13 on Sec. 13-4n-18w in the Ramona field is drilling at 3340 ft. The company's Cooke No. 1 on Sec. 14-4n-18w failed to show much to 3043 ft. and after No. 13 is completed probably will be deepened.

Piru Test Drilling

Drilling has reached 3900 ft. in Continental Oil's Continental - Herley-USL No. 1 on Sec. 15-5n-18w in the Piru area, Ventura County. Pacific Supply Cooperative's Nathan No. 10 on Sec. 23-5n-20w at Sespe, a cable tool job, is idle temporarily at 632 ft. The Simco, Inc., No. 1 test on Sec. 6-2n-17w is likewise inactive at 270 ft.

Tompkins Job Grades

Ground is being graded for Texas Company's Holmes - Eureka No. 6 well on Sec. 24-3n-1w at Tompkins Hill, Humboldt County.

Vaca Mountain Wildcat Spudded

In the Vaca Mountain area on Sec. 28-9n-3w, Napa County, Western Gulf Oil has spudded its interesting wildcat well called J. N. Knowles No. 1.

Southern California Petroleum Company's Handy No. 1 in the Del Valle Field. Loffland Bros. drilling contractor. Left to right: C. E. Beall, racker; Fred Cothran, cathead; C. H. Beall, lead tong; B. J. Rasey, derrick; W. J. Hoschler, driller; Bill Vaughn, pusher.

Butte County Ads Discovery

Honolulu Oil Corporation appears to have uncorked new gas in the Princeton area of Butte County. The test, Honolulu-Humble-Wildgoose No. 1 on Sec. 17-17n-1e, has run a number of formation trials and they evidently held promise for casing was cemented at 3390 ft. Total bottom is 4009 ft. and plugged depth 3400 ft.

Pescadero Test Fails

The development campaign in Northern California counties received a setback when Texas Company abandoned its Mattei Estate No. 1 on Sec. 34-7s-5w in the Pescadero area, San Mateo County. Drilling came to a halt at 5813 ft. Union Oil's Teresa Hihn No. 1 on Sec. 34-10s-1e at Santa Cruz is drilling at 1440 ft. In the La Honda sector, Bell & Burden, Inc. is coring at 3730 ft. with Riskin No. 1 on Sec. 13-7s-5w. Richfield Oil's Isenberg No. 1 on Sec. 12-7s-4w is rigging up.

Bruffey Ranch Wildcat Scene

On the Bruffey Ranch in the Union Pass area of Eureka County, George Hadley has drilled five exploratory wells with cable tools to depths ranging from 30 to 600 ft. His No. 6 and No. 7 wells are slated to start in the near future and continue the exploration work.

Los Lobos Test Rigs

Jergins Oil Company is ready to spud its Aurignac No. 2 on Sec. 9-23s-10e, southeast of Los Lobos, Monterey County. It is 700 ft. southwest of the company's discovery well completed last March. Jergins' USL No. 25-9 on the section is drilling below 5500 ft. Texas Company's Gould No. 1 on Sec. 9-19s-6e at Reliz Canyon is drilling at 7000 ft. F. Reich No. 1 wildcat on Sec. 24-20s-7e in the Oasis area is drilling at 3420 ft. Texaco has mapped out a program of 25 more drilling jobs in the San Ardo field.

Kirby Hills Test Drills

North of the Kirby Hills in Solano County, Shell Oil's Shell-Trico Unit One No. 1 on Sec. 19-4n-1e is making hole ahead at 5086 ft. In the Rio Vista area, Brazos Oil & Gas Company's Concord Gun Club No. 1 test on Sec. 33-3n-1e is drilling at 2060 ft.

Petaluma Test Rigs

Not far from the spudding stage is the Tide Water Associated Oil Company's Mangels No. 1 wildcat southeast of Petaluma on Sec. 14-4n-6w, Sonoma County.

Isleton Try Begins

Nearing the act of spudding is the Texas Company's Aldrich No. 1 test on Sec. 17-4n-4e, northeast of Isleton, Sacramento County. The company recently abandoned its J. S. Brown No. 1 on Sec. 11-4n-4e in the area at 4100 ft.

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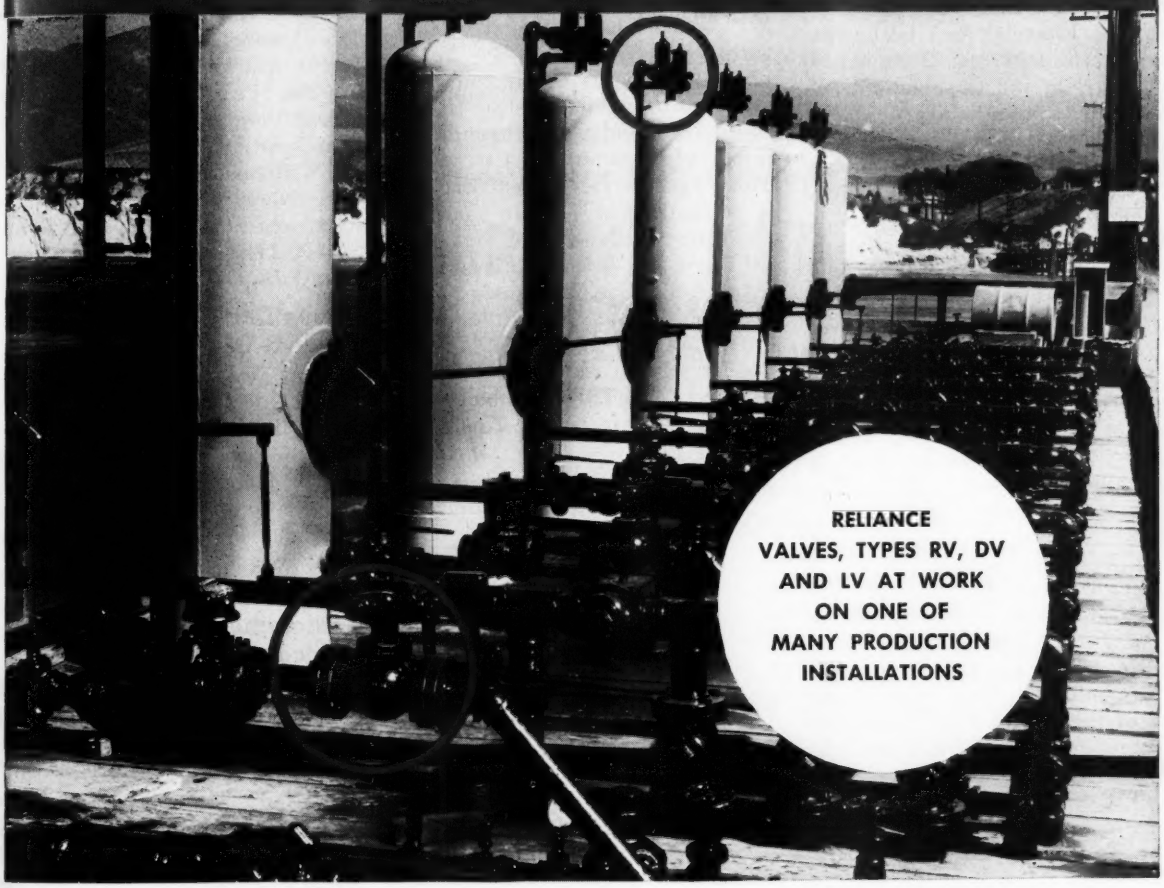

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San Joaquin Valley

Camden Area Adds Drilling

Cleveland Oil Company is planning a wildcat well about two miles from the Elmer C. von Glahn discovery well. Universal Consolidated, Honolulu Oil and Gene Reid Drilling are understood to share interest in the well which will drill on Sec. 6-17s-20e. The von Glahn discovery well went to a total bottom of 7602 ft. before plugging back to 6139 ft. for completion. von Glahn, meantime, is redrilling at 4200 ft. with his Coleman Comm. No. 2 on Sec. 8-17s-20e. The hole first was carried to 7041 ft., before it was plugged back and whipstock set for redrilling. Ground is being graded for the operator's Coleman Comm. No. 3 on the section. These wells are about four miles northeast of the Riverdale field. A quarter mile of the discovery, Victory Oil Company of Long Beach is starting its No. 1 on Sec. 8. Santa Fe Drilling Company also is ready to try its luck in the new area. The company's Dyson No. 1 on Sec. 6-17s-20e is working preliminarily. Four miles southeast of the Raisin City field, Seaboard Oil's Seaboard-S.A. & F.L. No. 74-34 on Sec. 34-15s-18e continues to drill ahead in the shallower formations. At Raisin City, Bell & Long drilled No. 2-19 on Sec. 19-15s-18e to 5351 ft. before lack of showings prompted the operator to pull out. Some 15 miles southwest of Mendota near Panoche Creek, L. M. Lockhart is drilling at 6800 ft. with Souza No. 1-36 on Sec 36-14s-12w. The test is a followup to a prior venture undertaken by the operator, which attempted completion from showings in the Cretaceous. The target in the current explorer is evidently San Joaquin sand. In the Curry Hills, drilling and spot coring is the order of the day in Signal Oil & Gas Company's Signal-Honolulu-Pauson No. 1 "untamed kitty" on Sec. 32-21s-15e. Cantua Creek's wildcat called So. Pac. No. B-1 and backed by Humble Oil is coring at 7600 ft. on Sec. 25-17s-15e.

Tejon Hills Tests Drill

LeRoy C. Gould, Operator, at last reports was poking ahead at 800 ft. with his Tejon No. 18-1 test on Sec. 18-11n-17w east of Tejon Hills. J. F. Konsanke's No. K-5-14 is drilling at 400 ft. on Sec. 14-11n-18w. On the Tejon Ranch, production during the first half of the year current showed a sharp boost. Crude oil yield in June averaged 5300 barrels a day. This was an increase of 1300 barrels daily above December, 1950.

Tevis Morrow Oil Company's Peggy Moore No. 16 in the Placerita Field. Pike Drilling Company, drilling contractor. Left to right: F. M. Lindsey, cathead; Harold Gray, racker; L. W. Porter, driller; Jim Moore, derrick.

Mount Poso Test Started

Universal Consolidated has begun work on its test well near Mount Poso. It is called Murdoch No. 1 and it will look for oil on Sec. 34-27s-28e. Palomar Refining Company's Voight No. 2 at this writing is a location on Sec. 6-28s-20e in the Williams area South of the Trico field, Harry H. Magee has staked location for Powell No. 1 test on Sec. 20-25s-24e.

Devils Den Wildcat Digs

Elko Drilling Company's Elko-Smith No. 1 prospect well on Sec. 29-25s-18e in the Devils Den field is drilling at 1140 ft. On Sec. 16-25s-18e, James H. Sewell has reached 3175 ft. with his redrill of Porter No. 1 and is attempting completions. Total bottom is 3583 ft.

Comanche Pt. Wildcat Drills

East of Comanche Point in San Joaquin Valley, Mitchell G. Kovaleski's Flowing Gold No. 1 on Sec. 34-12n-18w is drilling below 600 ft.

Carrizo Plains Wildcat Quits

San Luis Obispo County's Carrizo Plains continues a "hard nut to crack." Over the last two or three years a number of highly interesting wildcats have been drilled, but in the final analysis they were all dusters. The majority of these oil hunters found showings. However, when asked to give on conventional trials they showed a pronounced reluctance to cooperate. The most recent explorer on the Carrizo Plains to come to a disappointing end is Texas Company's Santa Margarita No. 1 on Sec. 2-32s-19w, which quit at 6003 ft., after running electric log and dipmeter. Several of the wells drilled in the area generally have found thick sand bodies, but a tightness and hard condition of the measures balked production. Near Simmler on the unconquerable plains, Shell Oil Company is drilling at 8560

ft. with its McDonald Est. No. 38-20 on Sec. 30-29s-18e. A protection string was set at 8190 ft. On the Gonyer Anticline in the Hovey Hills area, Robert S. Lytle has spudded his Dougherty No. 1 wildcat on Sec. 6-11n-24w. Location is three miles west of Maricopa production. British American Oil's Dodds-Thomas Unit No. 3 on Sec. 9-31s-21e in Panorama Hills is drilling at 1498 ft. Colquitt Drilling Company's Colquitt No. 1 prospect job on Sec. 7-32s-22e in Elkhorn Valley is "dishing out dirt" around 500 ft. East of the town of Templeton. Gene Reid Drilling Company's Heilman No. 1, a wildcat on Sec. 35-27s-12e, at last reports was digging at 2410 ft. Near Shandon, General Petroleum's Hillman - Darnall No. 1 on Sec. 34-25s-14e is slugging way at 6443 ft.

San Emidio Test Drills

Richfield Oil's San Emidio No. A-84-28, an exploratory well on Sec. 28-11n-22w in the San Emidio area of Kern County, has reached 1000 ft. and continues to drill on down.

Salt Creek Test Drills

West of Salt Creek, Cal-Air Petroleum Corporation's Sun Crest No. 1 wildcat is drilling with cable tools at 350 ft. on Sec. 26-29s-20e. At Upper Salt Creek British American Oil's Wright-C-USA No. 52A-23 has quit in hard shale at 3842 ft.

Rosedale Test Rigs

Humble Oil and Refining is rigging a new wildcat well in the Rosedale area, some 10 miles west of Bakersfield and two miles east of Greeley field production. The project is named Gladys N. Coombs-Estelle Rudd No. 1 and it will drill on Sec. 15-29s-26e. The company's Pleito Creek wildcat, KCL No. 1 on Sec. 35-11n-21w, is pump testing from a plugged bottom of 4150 ft. Original depth is 5451 ft. In the east Mountain View area, Humble has staked Kirschenman No. 1 on Sec. 27-30s-29e and E. Westberg et al No. 12 on Sec. 34-30s-29e. The two wells drilled one-half mile and one-quarter mile, respectively, from Ring Oil Company's Means No. 1 discovery well, drilled by Independent Exploration to 4918 ft. and then plugged back to 4609 ft. for completion last February. Initial yield was 175 barrels a day.

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Dyer Creek Try Finals

J. D. Wrather, Jr., is completing his Smith-Cairns No. 1 wildcat on Sec. 11-26s-27e at Dyer Creek, Kern County. The project drilled to a total depth of 2304 ft. in gray sand. It plugged back to 2241 ft. for the final touch.

Edison Test Ready to Spud

Ready to take that first bite of ground is Lyle A. Garner's Barneson No. 1 wildcat on Section 12-30s-29e, north of the Edison field. The well is on a 1110-acre lease. Southeast of the field, San Joaquin Drilling Company's Di Giorgio No. 5 on Sec. 32-30s-30e, is idle at 682 ft. California Exploration and Macmillan Petroleum are starting Clerico No. 1 on Sec. 28-30s-29e at West Edison.

Bitterwater Test Planned

Texas Company is widening its exploratory campaign in San Benito County and has staked Tully No. 1 on Sec. 21-18s-10e in the Bitter Water area. Northwest of the town of Hollister, Texaco's O'Connell No. 1 on Sec. 14-12s-4e is drilling steadily ahead in the shallower formations. Dan Fisher, who maintains offices in the Rowan Building in Los Angeles, is making hole at an inconclusive depth with his Sargent-Fisher No. 1 in the Sargent area, Sec. 36-11s-4e.

Pyramid Hills Wildcat Begins

Under the banner of Glen H. Mitchel and the Mitchel Company an interesting wildcat well named Mitchel-Lucier No. 1 is starting on Sec. 19-24s-18s in the Pyramid Hills, Kings County, Location is a quarter-mile northwest of General Petroleum's Martin No. 1, which quit at 2075 ft., after hitting a fault zone from 1200 to 1500 ft.

Personalities IN THE NEWS

Kelly and McEnroe Advance At Halliburton

New officers of Halliburton Oil Well Cementing Co. are R. G. Kelly, named regional-vice-president, and G. D. McEnroe, new assistant treasurer, according to W. R. McClendon, Halliburton president.

President McClendon announced selection of the new officers following Halliburton's annual stockholders and board of directors meeting.

Kelly joined Halliburton in May, 1930 at Odessa, Texas. Assignments followed at Hobbs, New Mexico; Midland, Texas; Shreveport, Louisiana, where he became manager of Halliburton's North Louisiana division; Midland, as West Texas-New Mexico division manager; and Duncan, Oklahoma, Halliburton's home office, as regional manager for the central region.

The new regional vice president continues to supervise Halliburton's California, West Texas-New Mexico, Central Texas, Dallas and North Louisiana divisions.

McEnroe began his Halliburton career in January, 1940 as a tax accountant. Successive promotions brought him to tax department supervisor and to his new post as assistant treasurer.

Both Kelly and McEnroe continue to maintain their headquarters at Duncan.

All other Halliburton officers were reelected at the directors meeting. They are: L. B. Meaders, vice president in charge of field operations; L. D. Campbell, vice president and secretary-treasurer; Fred R. Whitten, vice president for northern region; Harry P. Conroy, vice president for southern region; Ralph R. Emery, vice president for foreign operations; Wilfred Tapper, vice president for electrical well services; W. D. Owsley, vice president for engineering advice to management; J. Grover Kilgore, vice president for sales and advertising; Hugh H. Leonard, assistant secretary-treasurer; and John P. Harbin, assistant secretary.

New officers of Halliburton Oil Well Cementing Co. are R. G. Kelly, left, and G. D. McEnroe. Kelly has been named vice president for Halliburton's central region; McEnroe is new assistant treasurer.

The Lane-Wells Company announces that C. F. Ludwig is now Assistant Manager of its Pacific Coast Division. Ludwig, known as "Lud" to his many friends throughout the industry both in the United States and Canada, will supervise all personnel and assist in the management of all activities of the Pacific Coast Division. Lud has been associated with the petroleum industry and its related services since 1933, having held various positions in the oil fields and in administrative capacities. He joined Lane-Wells in 1937 as a shooter and has been a superintendent of Districts throughout the company. Before going to Canada in 1949 as Vice-President and Manager of the Lane-Wells Canadian Co., he was Gulf Coast Division Sales Manager. 18 years in the petroleum industry and 14 years with Lane-Wells give Ludwig a wide background from which to draw information that will be helpful to California operators.

Gordon F. Neaves, prominent motor car dealer of Boston, Mass., has sold his business interests in the Hub City and come to Beverly Hills to join forces with his brother Joe Neaves, Jr., head of Neaves Petroleum Development.

Hubert Popenoe, Shell Oil Company at Ventura, has sailed from New York for world headquarters of Shell Oil Company at Amsterdam, Holland. While there he will study all phases of company operations.

Robert C. Hill has been employed by the Lane-Wells Company as Los Angeles District Electrolog Engineer.

Hill graduated from the University of Colorado in 1941 as a Geologist-Petroleum Engineer and since that time has been doing exploration and survey work exclusively.

While with Hall-Baker Exploration Company Schlumberger Corporation and Mohawk Petroleum Corporation Hill did electric logging and Subsurface Engineering. He was in charge of electric log operations at the Elk Hills Naval Petroleum Reserve during World War II.

Hill originated and was head of the Electronic Department of Eastman Oil Well Survey Company and became Mid-Continent Division Manager of that company prior to joining Lane-Wells.

Clarence J. Moody, a graduate of the University of California in 1916, nationally known petroleum geologist and long-time member of Ohio Oil, was recently appointed research geologist. He will make headquarters at Shreveport, La. Moody in 1950 was elected president of the American Association of Petroleum Geologists and recently concluded his term of office as head of this important oil industry association. He had previously served as vice president of the organization, and associate editor of the A.A.P.G. bulletin, topdrawer technical publication or the "bible" of petroleum geologists.

Warren Smith, Doheny interests, is on a jaunt through oil districts in Texas. The Doheny organization recently moved from the Petroleum Building in Los Angeles to the Corinne Griffith building, Beverly Hills.

Ted Lee, Barnsdall division of Sunray Oil Corporation at Los Angeles, is now on duty at Calgary properties of the company.

Reese H. Taylor, president of Union Oil, who recently announced company profits before taxes during the first six months of the year current were the highest in history for any similar period, has been elected to the board of directors of the YMCA at Los Angeles. In addition to his business duties, Taylor is active in civic and philanthropic affairs.

With F. R. Schmieder, Shell San Joaquin Valley division manager presiding, 85 company employees were in attendance at a dinner in the Hotel El Tejon at Bakersfield in recognition of the excellent safety record attained by the group for the first six months of 1951. The group included exploration and production employees in the Bakersfield area. They operated without an automotive or lost-time industrial accident during the period.

Joseph Parmenter, previously with C. E. Houchin of Bakersfield, has joined the geology staff of D. D. Feldman Oil & Gas Company. He will make headquarters in Los Angeles.

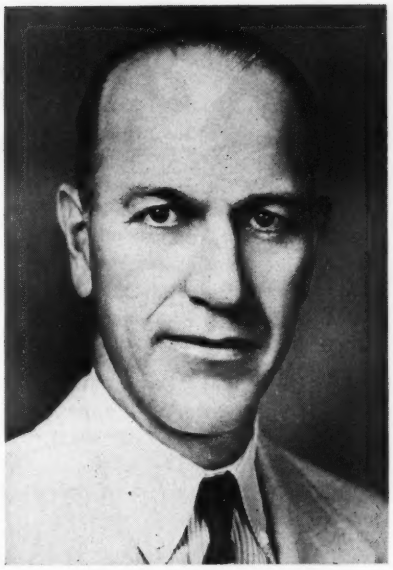
Coalinga-Kettleman Announces Barbecue Date

The Coalinga-Kettleman Chapter API, Division of Production, announces that the Annual Barbecue and Hi-Jinks will be held on September 19, at the Polvadero Country Club.

The Chapter, through their Secretary and Treasurer, W. R. Donahue, extends a cordial invitation to the oil fraternity.

New Sales Agent For Web Wilson

F. L. Rathert ("Lee" Rathert) has been appointed sales agent for Web Wilson Oil Tools, Inc. at Farmington, New Mexico. His address is Box 96, telephone 285-J; or in care of Farmington Supply Co., telephone 735-W.



Lee J. Lobdell has been appointed Vice-President and Manager of the Lane-Wells Canadian Company. He replaces C. F. Ludwig who has been made Assistant Division Manager of the Pacific Coast Division of the Company. Lobdell's responsibilities cover the development and maintenance of all phases of the company's Canadian activities. Lobdell, who has been with Lane-Wells for 14 years, gained his prominence in the Gulf Coast Division where he has been Superintendent of various Districts of that area. After leaving Providence College in Rhode Island, Lobdell did sales work in varying capacities. He started with Lane-Wells as a crew member in the field and his experience, gained by his many years in well logging and perforating, will enable him to be of great assistance to Canadian oil men.

Salvatori Makes Gift To Stanford

A gift received by Stanford University from Henry Salvatori, president of Western Geophysical Company of America, will be used to equip a geophysical laboratory at Stanford, it was announced recently by President Sterling.

Dean Charles F. Park Jr. of the School of Mineral Sciences said that the new laboratory, which will be in operation by September, 1951, will be used to investigate mineral resources through the study of the physical properties of the earth's crust.

In addition to the grant, amount of which was not disclosed by the University, Mr. Salvatori is presenting to the University on permanent loan additional equipment for use in the laboratory, and is helping to finance an additional professorship in geophysics.

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Spurred by Shell Oil Co.'s sensational discovery on the Montana side of the vast Williston Basin, the exploration program reached a new highwater mark in the Rocky Mountain region in August, and appears headed for unprecedented expansion.

In all parts of the farflung region —from northern New Mexico to the prairies of Alberta, and on both sides of the Rockies—record numbers of wildcat wells are drilling.

Interest centers currently in new areas in Montana, the Dakotas, western Nebraska, Wyoming, Colorado, Utah and the San Juan Basin of northern New Mexico.

Skelly has just staked location for an important Pennsylvanian test in the Dry Mesa area northwest of the Barker Creek field in the San Juan Basin. Location for the No. 1 Benton was made in section 15-33n-13w.

This follows encouraging production tests made at Thomas Doswell's second well in the South Largo area of Rio Arribo county, which flowed 464 bbls. 43 gravity oil in 24 hours thru 18/64-inch choke. The well, about 55 miles southeast of Durango, was the first to produce oil in the area, altho many others have been completed in recent months as gas wells.

Nearer Durango, in the Ignacio area of LaPlata county, Colorado, some 16 wells are either drilling or due to start. In adjoining San Juan county, nearly 100 wells are under way. The Doswell venture is one of nine wells under way in Rio Arriba county.

On the Utah scene, Pacific Western is reworking its interesting Gordon Creek discovery in Carbon county, which was shut down several years ago after flowing carbon dioxide gas from a total depth of 12,146 ft.

Confidence in Utah's potential as an important oil producing state was expressed recently by O. C. Schorp, president of Carter Oil Co., who said his firm plans to spend five or six million dollars this year in the search for oil. He brought up the possibility of Carter building a refinery in Salt Lake City to refine production from the Uintah Basin. John R. Suman, vice president of Jersey Standard, said it would be a logical development to refine the Utah crude in Salt Lake and ship products via pipeline to the west coast. These developments will wait assurance of sizable production in the Basin.

Meanwhile Carter and Continental flowed their discovery in the Duchesne unit, Utah, at the rate of 10 bbls. oil per hour—still cutting 3% water and some mud in cleaning out. The well, No. 1 Ute Tribal, found production west of previous Basal Green River fractured shale wells in the region. The oil flowed from a zone 7486-7586 ft. after the operators circulated hot oil in the annular space to 3916 ft. The oil has a pour point of 100 degrees.

Salt Lake's growing importance as an oil refining center was underlined with reports that Sinclair and Continental are considering laying a products pipeline from the Sinclair plant at Sinclair, Wyo., to the Utah capital. The line would be 240 miles long and cross the continental divide west of Rawlins. Each of the companies has around 25,000 bbls. daily production in the Rocky Mountain region. The proposed line could connect with the present products line from Salt Lake to Pasco, Wash., permitting distribution of products to the Pacific northwest.

Each week brings its quota of new wildcats in the booming Julesburg Basin of western Nebraska and northeastern Colorado. Among the latest were wells scheduled by Sohio Petroleum and Shell Oil in Colorado and C. A. Johnson, Wytex Petroleum and Magnolia Petroleum in western Nebraska.

Shell, with a record of 16 producers out of 16 trys in the Julesburg Basin, will drill in the Cooper area of Morgan county. Sohio staked a well on a farmout from Ryan Oil north of Sterling. Quintana Petroleum of Houston dealt with Earl M. Cranston of Billings for a checkerboard of 40,000 acres of Colorado state lands thru northern Weld county. Quintana only recently stepped into the Rocky mountain play with a lease spread in Wyoming.

The regional spotlight continued to play on Shell's discovery near Richey in northeastern Montana, now confirmed as the second producer in the big Williston Basin. Further testing is scheduled for the well after deepening a short interval thru the producing zone, thought to be in basal Mississippian limestone (Madison). The well flowed by heads at the rate of 80 to 100 bbls. 38 gravity oil per hour, with 7-inch casing cemented at 7183 ft. Later the flow diminished somewhat. In the first 29 hours the well flowed 345 bbls. oil, with tools closed 20 hours. Producing zone was logged between 7183-7266 ft., and original plans to drill to Devonian probably will be dropped.

Leasing, which spread like wildfire across the North Dakota prairie following Amerada's initial discovery at Beaver Lodge, became even more intense following the Shell strike. Lease prices leaped to $50 an acre in the area of the Shell discovery, and the play swung westward across the northeastern corner of Montana. The Montana State Land Board offered 37 tracts embracing 10,780 acres in northeastern

Montana for competitive oral sale at Helena on Aug. 15.

Other Williston Basin wildcats are getting under way rapidly. C. H. Murphy, Jr., of El Dorado, Ark., made location for a well on East Poplar, north of Richey. Shell is drilling another deep venture on the Pine Unit in Wibaux county, 75 miles southeast of Richey. Texas Co. is drilling a Devonian test at Baker-Glendive, Dawson county, between the two Shell wells. Texas Pacific Coal and Oil teamed with Pure Oil to drill an Ordovician test on the Plevna anticline in Fallon county (23-3n-61e).

Meanwhile Shell pursued possibilities in South Dakota with a wildcat at the No. 1 J. T. Home in section 13-20n-12e in northern Perkins county—about 15 miles south of the North Dakota border in undrilled territory. The southernmost venture started in the Williston Basin, it is scheduled to drill 9,000 ft. to granite.

Amerada completed the North Dakota discovery well, No. 1 Iverson in 6-155n-95w, for a flow of 12 bbls. 39 gravity oil per hour, accompanied by a flow of 290,000 cubic ft. gas per day. Drilling has already started on the first offset.

Other border areas of the Rocky mountain region are due for some bold exploration efforts. Standard of California staked location for a Devonian test in the Burbank area of Millard county, Utah, in the sec. 3-22s-20w. This shallow (only 4,000 ft.) test will be one of several slated for Basin and Range province of Utah and Nevada. Recently shows of oil were found in a series of wells drilled in the unproved province, leading to further exploration. Gulf Oil is reported planning a deep test on the Bishop Springs structure north of the Burbank area, on a farmout from Phillips and Sinclair.

In Wyoming, General Petroleum's discovery at Manderson flowed 37 bbls. oil per hour thru choke, with the oil testing 41 gravity. The recent discovery marks another surface high along the east side of the Big Horn Basin, with production coming from the Embar lime at 7220 ft. The venture will be deepened to the Tensleep and possibly the Madison lime for a full evaluation of the structure.

Wilshire and Superior are drilling below 11,000 on the deep Meeteetse wildcat in Park county, which may open another pool along the main axis of the Big Horn Basin similar to the Worland field and Slick Creek. Operations were delayed by a fishing job.

In the Sussex area of Johnson county, Continental has confirmed discovery of Tensleep production. The new horizon was opened as an oil producer last May at No. 59 unit in the Sussex field, which found good production in the Tensleep. Deepening operations were started at No. 2 unit, an east offset to the original Sussex Lakota sand discovery which was the first of the very few dry holes encountered in the field. Saturation was found in the Tensleep sand below 9290 ft., indicating substantial proved acreage in this formation. The area already has producing wells in the Sussex, Shannon, Wall Creek and Lakota sands.

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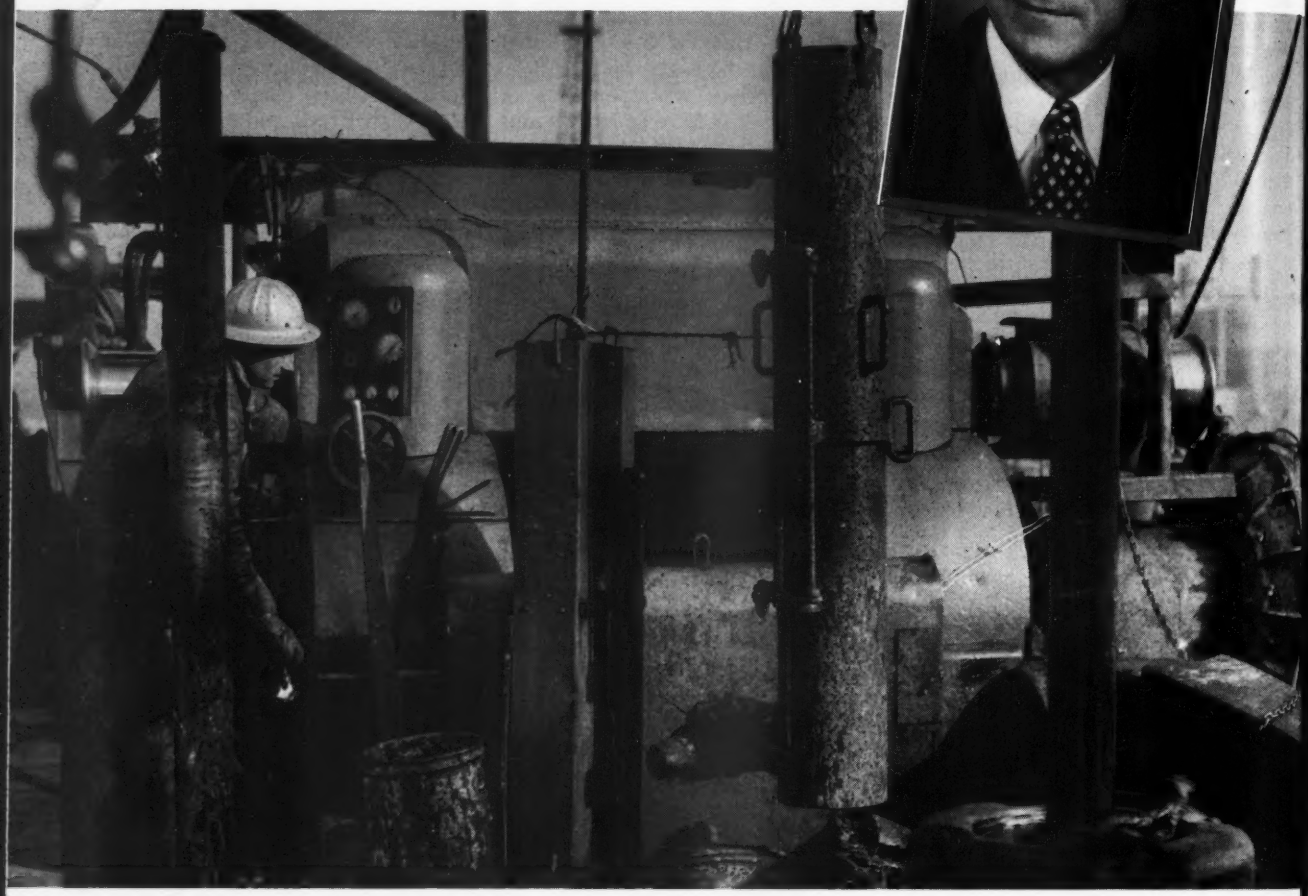

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To the west of Sussex, another Continental wildcat was coring below 4150 ft. after finding pay in the Shannon sand to widen the producing limits of the area.

On the southern edge of the Powder River Basin, California Co. registered disappointment in the Orin Junction area when the No. 1 Carmin was plugged at 4668 ft.

Development drilling is continuing at a rapid pace in the South Glenrock and East Big Muddy areas on the southern side of the basin.

Good news for progress of the Platte Pipe Line from Worland to Casper to Wood River came late in July. Senator Joseph C. O'Mahoney of Wyoming advised the Rocky Mountain Oil and Gas association that new allocations of steel pipe would permit completion of the project by next spring.

Platte Pipe Line will carry 90,000 bbls. of oil daily from the central Wyoming region into the Wood River refining hub. To date, the 16-inch line from Worland to Casper has been completed, and part of the 20-inch line from Casper eastward has been installed. Materials for two pump stations near Casper have arrived. With additional pumping facilities, the capacity of the line can be increased to 150,000 bbls. daily, assuring a new pipeline market for growing Wyoming crude oil production. Production in the state is maintaining the 200,000 bbls. daily rate.

Field trips are proving of more than usual interest to geologists in the mountain region this summer. A caravan of 85 vehicles carried 265 members of the Wyoming Geological association and their guests from other oil states on a tour of central Wyoming points of interest early in August. Visits were made to the Rawlins uplift, Hanna Basin and other structures. The geologists heard Frank A. Morgan, president of AAPG, outline the potential of the Rocky Mountain region. The tour provided an insight into the entire geological history of the region, with stops made to study exposed formations all the way from pre-Cambrian granite to Upper Cretaceous.

Another interesting field conference is shaping up at Billings. The Billings Geological Society will conduct its second annual field conference Sept. 7 to 9, touring the central Montana area. Reservations may be made by writing V. A. Gilles, chief geologist, Northern Pacific railway, 508 Securities Bldg., Billings, Mont.

In the personal news of the region, E. E. Brown, former partner in Manning and Brown Drilling Co. of Denver, died in the Colorado capital July 21 after a lingering illness. Well known in Rocky Mountain oil circles, he had retired from active work in 1945.

Oilmen from throughout the region drove and flew to Denver to hear Interior Secretary Oscar Chapman address a luncheon sponsored by the Rocky Mountain Oil and Gas association. The secretary spoke in enthusiastic terms of shale oil reserves and future industrial growth of the region.

WESTERN CANADA

In Alberta, the news turned on a new Devonian oil discovery reported in the south central portion of the province. Light crude oil, possibly gassy and water cut, was

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reported by Husky Oil and Phillips Petroleum in Devonian D-2 at the Pine Lake wildcat. Tests were still inconclusive late in July, but Canadian operators were speculating about prospects of new Devonian production in the area between Calgary and Red Deer.

Saskatchewan also boasted its first show of free oil when Socony-Vacuum found a showing of light oil in its No. 1 Prairie-Tomkins five miles northeast of the town of that name and 70 miles east of the Alberta border. Earlier the venture struck a flow of 2,000,000 cubic feet gas daily. Resources Minister Brocklebank called the venture "the most significant light oil show in Saskatchewan to date."

While the venture probably will be completed as a gasser, the significant oil show is expected to spur the search for petroleum in the province.

Exploration has reached a new peak in Saskatchewan, with 12 wildcats drilling early in August. A deep test is also planned in the southwest corner of the neighboring province of Manitoba by Brandon Exploration, a subsidiary of California Standard. The venture will be drilled about 80 miles southeast of the Virden, Manitoba oil discovery of California Standard, which was first to find oil in the Williston Basin earlier in the year, and set off a chain reaction of developments now making this region the "hottest spot" on the continent.

Canadian oil operators see in Britain's current difficulties with the Iranian government an increased stimulus to exploration in western Canada. It is felt Britain may also have difficulties in Iraq, and the U. S. oil interests may be jeopardized in the politically shaky Middle East. The inevitable result, as viewed by oil men, is an intensification of the search for, and development of, western Canada oil reserves.

John Charles Naye, 53, oil marketing executive for General Petroleum Corporation, died in Los Angeles. A veteran of the first world war, Naye since 1927 had been with General Petroleum. He specialized in personnel and credit administration.

Appointment of H. H. Black as Shell Oil Company's retail manager in the Los Angeles division was announced by R. D. Stetson, division manager. Black succeeds A. J. Shirley, who becomes Shell's division sales manager at San Francisco.

Following 28 years of service with Southern Counties Gas Company, Archie E. King of the Santa Monica Bay division, retired August 1. He is a native of Pawtucket, R. I.

Aden W. Hughes announces his retirement from Union Oil Company on September 1 after 10 years with the company. He is entering the consulting field in paleontology and geology. He will be associated with Dr. Paul P. Goudkoff, Subway Terminal Building, Los Angeles.

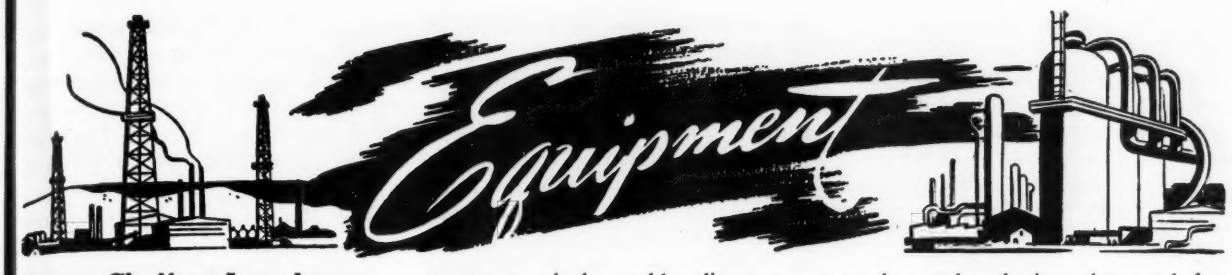
Robert L. Rist has been appointed San Joaquin Valley district geologist for Jergins Oil Company of Long Beach. He succeeds the late Harry A. Campbell.

N. D. Taylor, manager of gasoline sales for Hancock Oil at Long Beach, has rounded out 28 years of continuous service with the company. Taylor began working in the first Hancock refinery immediately after its completion in 1923, and he was a refinery operator for seven years before he transferred to the sales department.

Standard Oil of California geologists Harry Nagel and Murray Nadler at Taft have been transferred to the Bakersfield office of the company.

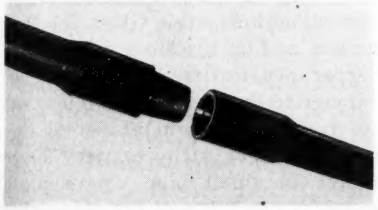
Charles J. Spiker, budget accountant at the Torrance plant of National Supply Company, has been named assistant division controller of the company's California division.

Next September 1, C. E. Davis, Shell Oil Company's vice president in charge of manufacturing, will take over as director of the refining division of the Petroleum Administration for Defense. At that time Reid Brazell, present director, will return as president of the Leonard Refineries in Michigan.



Spang-Chalfant Introduces Spangweld Drill Pipe

Spang-Chalfant Division of The National Supply Company, Pittsburgh, Pa., announces SPANGWELD Drill Pipe, a new product on which a welded connection is employed between the tool joint and the upset ends of the drill pipe.



SPANGWELD Drill Pipe with integral tool joints. A welded connection is employed between the tool joint and the upset ends of the drill pipe.

The company is prepared to furnish every type and size of joint now in common use. Also available are many different combinations of joint and pipe O.D.s that cannot be furnished when screwed connections are used.

Hard-faced tool joints are optional in standard sizes. Hard-facing material is inlaid by automatic welding equipment in six bands. Three pads spaced 120 deg. apart around the 18-deg. taper of the elevator shoulder are also provided.

The newly developed SPANGWELD Drill Pipe will minimize operating costs, it is asserted. Low "per foot" initial cost and recognized long life, will provide economical operation over an extended period, the company reports.

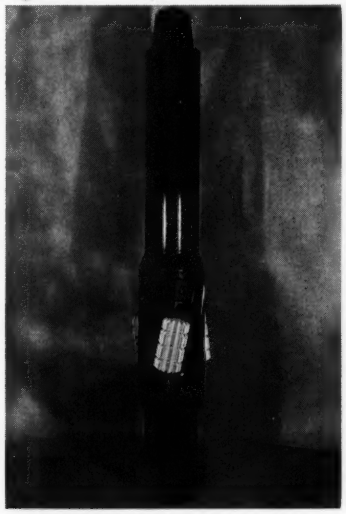
A high production rate has been assured by the installation at the company's Ambridge, Pa., plant of new welding equipment. Uniformly high quality and strength of every welded connection is assured by automatic operation of the flash welder. The complete sequence of welding operations is set for best weld joint properties and are unaffected by the operator. Alignment is assured by mechanical holding fixtures.

Concentrated electric induction heat treatment of the weld relieves any residual stresses. Machining operations remove upset and weld flash inside and outside. Magnaflux inspection and hydrostatic tests are applied to every length of SPANGWELD.

Quality control has been completely utilized in the development and manufacture of SPANGWELD Drill Pipe. The pipe and tool joints, both made by National Supply, are subject to a single set of manufacturing standards and to a unified inspection program.

Grant Introduces New Tool

Simplicity is an outstanding feature of the improved Grant Reamer, a rugged tool that incorporates the minimum of parts and is designed for easy operation in stabilization and reaming out the hole to full gauge.

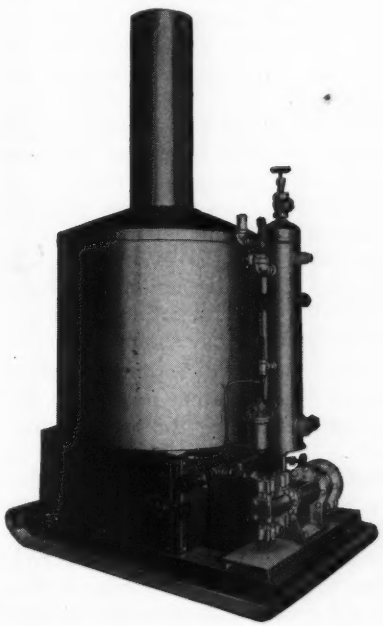


Made from tough alloy steel forgings and heat treated for added strength, the Grant Reamer is streamlined to permit uninterrupted flow of circulation fluid, and the cutters are so angled that weight must be applied to make the tool progress downwards. It cannot, therefore, corkscrew itself into the hole. The reamer can be run with either end up, thus giving added service and reducing the need for subs. A unique locking assembly insures against loss of the cutters in the hole and worn cutters are easily and quickly replaced right at the rig.

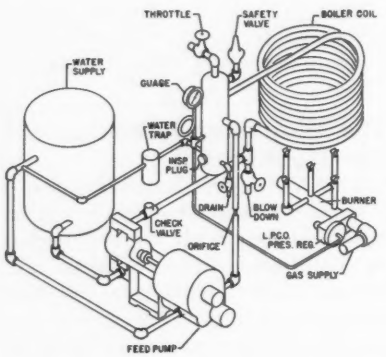
Grant Oil Tool Company manufactures three-, six-, and nine-point reamers for every reamer purpose.

The Waterman Boiler For Treating Oil

The Vanderlei Manufacturing Company, Bakersfield, California, has recently placed on the market the Automatic Orifice Control Waterman Boiler. This is a complete unit for treating oil to remove water and change viscosity. It is made in 30 horsepower sizes and has a 200-lb. working pressure wet or dry steam. The manufacturer claims that the unit is extremely simple, as it has only three working parts. The firebox is eliminated, no pit is required for either open or closed systems. No gear, pulleys, bearings, belts, or electronic controls are required.



It is a complete unit, ready to be connected to fuel and water lines. The feedmaster pump, burner, and necessary controls are an integral part of the generator. Electricity is required only for the oil-fired unit, which has an electrically operated blower. The gas fired generator does not need any electrical connection. Control automatically functions to maintain the unit in heat and water balance under all operating conditions. Any pumper or mechanic can easily operate this unit.



Automatic Orifice Control, combined with advanced design, makes this unit extremely efficient. The coil construction, forced circulation, improved counterflow principle, and the integral combustion chamber mean faster steaming plus greater efficiency. It develops full horsepower from a cold start in less than five minutes which is a remarkable performance and a distinct advantage in various applications. It is explosion-proof and constructed according to the A.S.M.E. Code. The coils withstand exceptionally high steam pressure, and are given a hydrostatic test at the factory. A special low pressure fuel shut-off automatically cuts off the fuel to the burner in the event of water failure. Positive in action. It is reset manually, thereby calling attention to fuel, water, or mechanical failures.

The Waterman Automatic Orifice Boiler Feed System modulates the pump speed to fit the load requirements of the boiler. In addition to the amount of steam being discharged through the throttle to the load, it is necessary for the pump to supply "extra" water for controlling the speed of the pump, so that it will maintain at all times an oversaturated condition in the coils of the boiler.

This "extra" water is separated from the steam in the steam separator and directed into the "orifice" which controls the feed-water pump. In addition to controlling the feed-water pump, this "extra" water becomes a continuous blow down from the boiler coils, through the pump and to the hot well, wherein the temperature drops and allows the solids to precipitate in the hot well where they can be periodically drained.

McCullough Introduces New Glass Jet Perforator

75% deeper penetration through solid steel plate, with 37.5% less explosives, is the remarkable achievement of the new, improved McCullough Flexible Glass Jet Perforator. With over ⅓ less explosives, this new perforator is substantially and consistently increasing production in oil wells according to the manufacturers.

More power with less explosives is particularly applicable in small pipe where more power is needed.

Another improvement has been the use of 50% stronger, retrievable, flexible steel strip carrier. Due to its flexibility it can be lowered into the hole BELOW a bad place in the pipe or past a sharp dog leg or kink in the casing. Added strength of the new steel strip carrier permits 100% recovery of the strip, eliminating the possibility of debris.

The value of this flexibility was demonstrated recently when the pipe had gone bad in a deep, expensive well—ABOVE the point where perforating had to be accomplished. Ordinarily this would have meant a redrill job, which the operator estimated would have cost him $75,000.

A small O.D. tubular type jet perforator was first lowered into the well, but it could not pass the bad section. The new McCullough Flexible Glass Jet Perforator was then used, flexing and wiggling its way through the bad section to the desired perforating depth! The well is now producing several hundred barrels per day.

The McCullough Glass Jet Units are used in a steel strip carrier and in a solid steel gun body. In small pipe or damaged pipe the flexible steel strip carrier is used, since it does not limit the size or effectiveness of the charge. The charges can be set as close to the casing as possible and there is no body to split and stick in the hole.

The manufacturer further states that these new improvements in the McCullough Flexible Glass Jet Perforator add up to: More oil through deeper penetration; less chance of damage to the casing due to less explosives; elimination of debris due to a stronger strip carrier; more power in small pipe where more power is needed; and flexibility that permits perforating straight wells in good condition, as well as crooked wells or wells where severe conditions exist.

Further information on the application of the new McCullough Flexible Glass Jet Perforators may be obtained by contacting the nearest McCullough representative.

Pictured is the new, improved McCullough Glass Jet Perforator and Flexible Steel Strip carrier Assembly: A, electric rope socket assembly; B, sonic collar locator; C, new 50% stronger, flexible steel strip carrier; D, primacord; E, new Glass Jet units with 75.9% greater penetrating power and 37.5% less explosives; F, lead sinker bar.

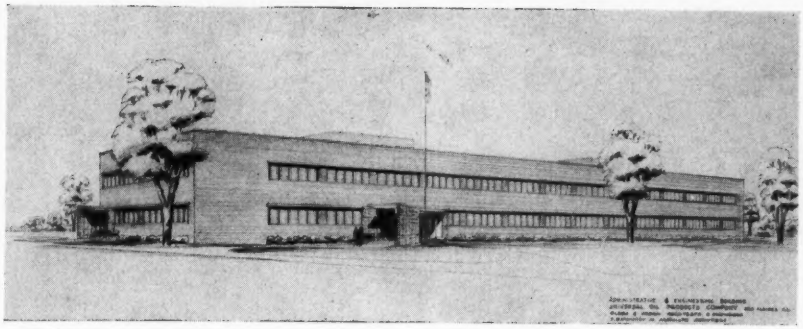
Hydro-Test, Inc. Issues New Bulletin

Hydro-Test, Inc., 2844 Gardenia Avenue, Long Beach, California, developers of pressure-testing for pipe and tubing, has issued an illustrated bulletin describing the method in detail. Hydro-Test finds leaks in tubing while the tubing is being pulled, while it is being run back into the well, or at the rack. Portable powered equipment is brought to the rig or pipe yard and locates all leaks, large or small. Copies are available on request.

Universal Oil Products Co. To Build New Office Building At DesPlaines, Illinois

David W. Harris, president of Universal Oil Products Company, Chicago, has announced that the Board of Directors of the Company, at a meeting on July 30, approved the construction of a general office building to be erected at DesPlaines, Illinois, a Chicago suburb.

In his statement Mr. Harris pointed out that the company has acquired a 54 acre tract of land which is sufficiently large to permit the addition of a laboratory, pilot plant, and other facilities at a later date. The building, on which construction will start immediately, will have 2 stories and a basement measuring



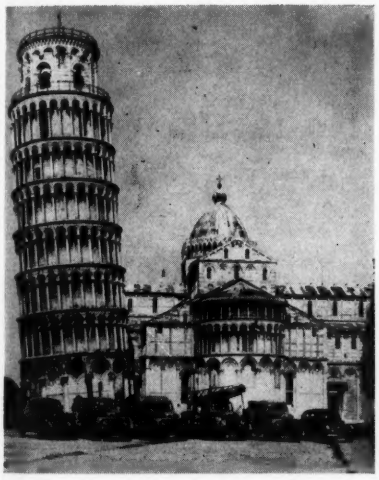
360 feet in length and 75 feet in width and will be of brick and concrete construction. When completed it will accommodate approximately 350 persons. Departments included, and now located in Chicago's loop, are development, engineering, design, service, and administration.

Quarters will also be provided for the company's construction subsidiary, Procon Inc.

Architects are Olsen and Urbain, Chicago.

Contractor is Henry Ericsson Company, Chicago.

Dan A. Kimball has been sworn in as Secretary of the Navy, succeeding Francis P. Matthews, who became Ambassador to Ireland. Kimball is a former Los Angeles resident.



Above is an interesting view of the Leaning Tower of Pisa in Italy, one of the great wonders of the world, with the complete rolling equipment of a Western Geophysical International field party lined up in the foreground. Left to right are a pickup truck, water truck, recording truck, drilling truck, shooting truck, and a passenger sedan. Western now has six such crews operating in Italy. European activities of the Company are under the direction of M. A. Boccalery, vice president, and he is aided by Thomas P. Maroney. Both were formerly active for Western in South America. Company division offices for the operations in Italy are located in Milan, Italy. Western International is an affiliate of Western Geophysical Company of America, one of the largest concerns of its kind in the world. Henry Salvatori is president and the firm has at present 43 field crews working for its clients in the United States, Canada, and foreign countries.

New Grove High Pressure Regulator Bulletin Available

A new 16-page illustrated bulletin-catalog describing applications, operating principles and features of Grove Powreactor Dome Regulators has just been released by the Grove Regulator Company. These regulators are used extensively for controlling gas, liquids and air at pressures up to 6000 lbs. at temperatures up to 150° F. Connection sizes range from ¼" to 2".

Utilizing the balanced pressure principle, the Powreactor Dome Regulator derives its powerful equalizing force from the pressure loaded dome, reducing initial pressure to the desired delivered pressure. Fully self-contained, these regulators automatically and accurately keep delivery pressures at the preset pressure by instantly reacting to offset any sudden or large surges in the flow. The pressure loaded dome principle provides universal delivered pressure range without the use of springs. Single-seated valve construction assures positive shut-off.

The new bulletin includes detailed specifications; capacity tables; and installation, loading and operating information for the bronze and forged steel models. Typical installations are also shown. A copy may be obtained by writing Grove Regulator Company, 6529 Hollis Street, Oakland 8, California, requesting Bulletin No. 123A-R1.

Bulletin by National on Connector Type Swivel-Bail

Bulletin No. I-363-A, just released by The National Supply Company, P. O. Box 899, Toledo, Ohio, gives the procedure for converting a conventional swivel-bail to the Ideal connector type swivel bail. Manufacturer says use of the improved bail provides fully articulated load equalization, saves time and effort in drilling operations and reduces maintenance costs. According to the bulletin the bail can be adapted for use with any elevator.

Joseph Drumheller has been appointed special consultant on fuels and minerals to Secretary of the Interior Chapman. Drumheller owns the Drumheller Analytical Laboratories at Spokane, Wash.

The 1951 Federal Tax bill, H.R. 4473, now pending before the Senate Finance Committee, provides for a 20 per cent withholding tax pertinent to mineral royalties, lease bonuses and delay rentals. Although this procedure is now followed on salaries and wages, this new provision instigates administration problems which oil leaders analyze as calling for correction. The measure also seeks to raise Federal gasoline tax from 1½ to 2 cents a gallon and widen the levy to Diesel fuel used for highway uses.

THIS LAUGH

OFF!!

In a certain war plant, the workers are submitted to an intelligence test periodically. One of the questions in this test involves a long list of diseases, and the question is asked: "Which of these diseases is most feared?" A dictionary is provided to aid in answering. It was noted by the inspectors that the female workers invariably indicated that claustrophobia was the most feared malady in the list, and couldn't quite understand it, until someone looked up the dictionary definition and found that the meaning was "fear of confinement."

A gentleman in the optical business was instructing his son in the technique of edging a fair and honest price out of a customer.

He said: "Son, after you have fitted glasses to a customer and the customer asks, 'What's the charge?' you say:

" 'The charge is ten dollars.'

"Then you pause. and watch for the flinch.

"If the customer doesn't flinch, you say: 'That's for the frames; the lenses will be another ten dollars.'

"Then you pause again—but this time just slightly—and again you watch for the flinch.

"If the customer doesn't flinch, you say: 'Each.' "

"It ain't sanitary," protested the traveler, "to have your house built over the pig pen that way." "Well, I dunno," replied the native, "we ain't lost a hog in more than five years."

"Dad, give me a dime."

"Not today, sonny, not today."

"Dad, if you'll give me a dime, I'll tell you what the iceman said to mama this morning."

"Here, son, quick, what did he say?"

"He said, 'Lady, how much ice do you want this morning?' "

Poker—a game where a good deal depends on a good deal.

"Frank, I hate to tell you, but last night at the party your sister promised to become my wife. Can you forgive me for taking her away?"

"Shucks, that's what the party was for."

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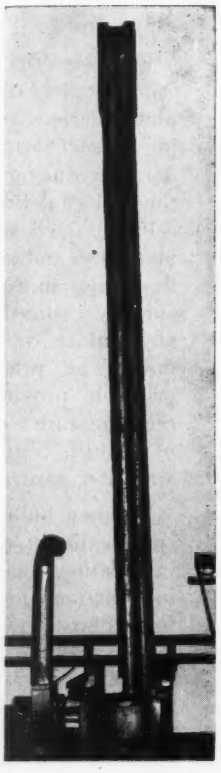

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